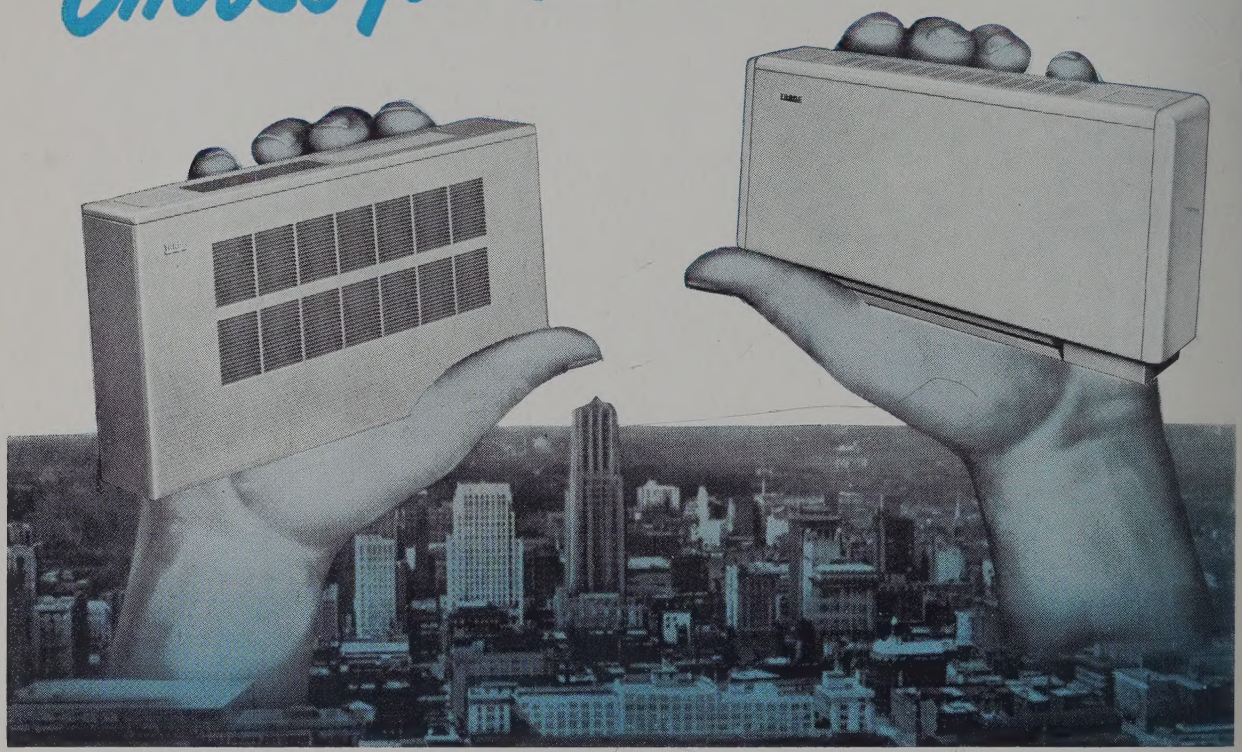
journal

the royal architectural institute of canada

december 1956

Choose Your Air Conditioning



Induction or Fan-Coil

UNITRANE *Serves You Best!*

AIR CONDITIONING satisfaction is in *your* hands—simplified by latest Trane developments.

Now, UNITRANE Air Conditioners offer you a choice . . . the familiar TRANE Fan-Coil Unit which has won outstanding acceptance as Canada's No. 1 Air Conditioner for multi-room, multi-storey buildings—or, TRANE'S *new*, Induced Air UNITRANE which provides filtered re-circulated air as well as filtered, fresh air.

Both types of UNITRANE provide personalized Air Conditioning, dial-controlled to individual preference, year 'round. Both are trim, compact, sturdy units built to the quality standards of Trane.

With the addition of these Induction Units to the regular Fan-Coil UNITRANE, Climate Changers, CENTRAVACS and Cold Generators, Trane brings you *matched* equipment for *any* air conditioning job—from small shop to skyscraper!

Specify Trane. Contact your local Trane Office for full details and latest technical information.

The Trend is to **TRANE**

COMPANY OF CANADA LIMITED

401 HORNER AVE., TORONTO 14, ONT. BRANCHES IN ALL PRINCIPAL CITIES

Canada's Largest Manufacturers of AIR CONDITIONING, HEATING and REFRIGERATION EQUIPMENT

RAIC JOURNAL

Serial No 376, Vol. 33, No 12

ROYAL ARCHITECTURAL INSTITUTE OF CANADA

All correspondence should be addressed to the Editor

EDITORIAL AND ADVERTISING OFFICES, 57 QUEEN STREET WEST, TORONTO 1

Authorized as Second Class Mail, Post Office Department, Ottawa

How THE CUSTOM of having the December Editorial by the Chairman came about isn't known by this Chairman. It is hoped that it was to afford an opportunity to give thanks and appreciation where due and to chide where necessary.

It is a privilege to acknowledge the sincere appreciation of the work done by the *Journal* staff, the Institute staff in Ottawa, the Editorial Board Members and Representatives and the special *Journal* Committee, as well as all the Institute members who realize the importance of their *Journal* and give some of their time and talent to its improvement.

In a message to the PQAA we find the President, M. Henri Mercier, giving gentle chiding to the architects of that province because they do not give sufficient time to the investigation of new building products and methods. This fault is not confined to one province or one group. All architects in Canada may contribute to the advancement of science in the interest of our clients and our profession by giving some time to the study of instructive advertising.

The *Journal* is celebrating its 24th Anniversary with some modest pride, but the Institute will be celebrating its Golden Jubilee at the Annual Assembly in Ottawa next year and the theme will be "Where do we go in the next fifty years?" It is fascinating to try to see the next fifty years in architecture, and it is possible that between now and next June we may be able to form some mental picture or have some conviction about our future. At this time, we can only recall a delightful report in the Talk of the Town section of the *New Yorker* magazine of a tour of the neighbourhood of Wall Street and Battery Park conducted by the Society of Architectural Historians.

The conductor of this tour "though comparatively young in years and, unlike most members of his profession, beardless, proved a veritable patriarch in his architectural convictions". The conductor was especially fond of the Wall Street district, where the great exponents of the Beaux Arts method of architectural training – since supplanted by the Bauhaus and other methods – reached their peak. The list of famous names for the conductor's favourite buildings included Trowbridge & Livingston; George B. Post; York & Sawyer; McKim, Mead & White; Delano & Aldrich; Warren & Wetmore and Cross & Cross.

The conductor, as reported by the magazine, "had wit and learning as well as a unfashionable theory of architecture, and everything he showed us seemed, for the moment, almost as beautiful as he said it was. We were back in the Golden Age and we had never dared to suppose that it was golden."

The conductor didn't avoid questions and criticism. When asked what possible excuse there could be for stone horses at the nineteenth floor of the Cunard building, his reply was "Ornament is to a building what clothes are to a man. Only the gods are allowed to go naked, and then only a few of the young ones. Must we lose all our splendour to attain the poverty of bare surface? All ornament exists to give delight and city dwellers need these riches. Let those who like plain buildings move to the country and live in barns. Any more questions?" And the answer by the magazine was "Not a one".

Can we hope to have such guided tours, with champions, for our work in 1996? Whether we do or don't, we take this opportunity of wishing all our readers, both in the profession and in industry, a very Merry Christmas and a Happy New Year.

Earle C. Morgan
Chairman of the Editorial Board

from the address of His Excellency, the Governor-General to the Community Planning Association of Canada

Ottawa, 29 October 1956.

UNTIL A SHORT TIME AGO most Canadians lived in the country. Now all that is changed. Hitherto a nation of country dwellers, we are now moving to town. Having settled there, we may make money, we may achieve comfort, we may even aspire within our home to that curious thing called "gracious living", but do we receive all we might reasonably hope for in the benefits of a civilized life?

It is easy to use good-sounding words and convey good sounds and nothing more. One may well ask what is a civilized life, and how can it be achieved. Well, I think it comes when men and women in society cherish four things. First, physical well-being; secondly, the moral virtues without which society cannot exist; thirdly, knowledge and understanding and fourthly, beauty in all its forms.

I do not think these can be separated from one another. They are, to a considerable extent interdependent and I am not suggesting any priority for they are all necessary aspects of civilized life. May I say something about two of these things – the promotion of knowledge and understanding of ourselves and our traditions, and the preservation and creation of beauty. These should not be special municipal "activities" to use an over-worked word. They should be linked with the very existence of the town.

We can have natural beauty in our towns even if we must forego the charms of the open countryside, and in a town one may enjoy the peculiar delights of natural beauty associated with the harmonies of good architecture, each embellishing the other. I am thinking as I speak of one example, the loveliness of old elm trees against the white clapboard houses of New England. But may I venture to say something else. If trees serve to adorn fine buildings, they can also hide bad ones. A mean and commonplace street, if it is lined with trees, becomes less unattractive. Its architecture – perhaps I should say just "buildings" – can borrow a certain grace from nature.

Over eighty years ago Joseph Howe made a speech here in Ottawa, in which he said this: –

> "In almost all our northern cities we are far behind our republican neighbours in arboriculture. For the first fifty years in the settlement of a new country trees are regarded as man's natural enemies . . . To cut down and burn them up seems a labour of love. The old States and Provinces passed through this iconoclastic period a century in advance of us. They commenced to replant trees about the time we seriously began to cut them down and now nearly all their cities and towns are planted".

If he were alive today I should like to travel with him to some cities and towns, in particular begging people to think of the importance of preserving the shade trees they have and of adding charm, and at times comfort, to scores of bald and dingy and – in the summer – torrid streets, by planting more.

And while we were on this tour I think we would say something about parks. Does the amount of land dedicated to this purpose seem sufficient in a country with the area of half a continent? Few as our parks are, they are, in some cities, constantly suffering from encroachment. Some of these invasions are doubtless necessary, but can we not see that a park is as essential as a road to sane and healthy town life.

Could we not, in improving our parks, try to preserve and embellish natural beauties? I know we must have playing fields and recreation grounds, but could we not give more thought to the increasing thousands of apartment dwellers who, after practising the art of survival on our city streets, and dazzled by the glitter of neon signs, need to see something still and green? Many cities realize this, but others do not.

Again, could we not think more of preserving the relatively few buildings we have that are old and good. Such monuments have beauty and dignity. They give life and character to our towns. I know two cities in Canada of great historic interest. Each has a site of natural beauty; each has a number of buildings of historic interest and architectural charm. One of these places takes a pride in preserving its treasures. In the other there is grave danger that they may disappear from sheer neglect – leaving the city just like any other one. I have no sentiment for the old just because it is old; but what is old and good has a special value in a mass-produced, synthetic age, and its preservation can give a town a special, individual character. I am not thinking only of monumental buildings. In our older cities, streets remain with dwelling houses surviving from earlier times and possessing a charm and quality of their own. Their restoration would seem to be a task for individual enterprise, rather than for public authority, but, however accomplished, the preservation of such old houses – there are many examples of this in London and New York – can lend special distinction to any community. The quality of sameness is a major menace in modern life. Let us protect our cities and towns as we would the minds of our children, from the steamroller of uniformity.

But that is only one part of the problem. It is so easy to assume that the town dweller, with all his accumulation of the comforts of modern engineering, gains everything and loses nothing by his move from the country. But often when he goes to the city there is too little in his surroundings to appeal to his reason or affection. It is of the utmost importance that, with shorter hours of labour for all, the atmosphere of the town should be stimulating and satisfying. There must be interest and occupation for the mind and the imagination. Where is this to be found? It will not be found in mere diversions, however excellent they may be as diversions. If we are to maintain a healthy and vigorous life, people must have substantial food for the mind and spirit. There is a difference between sedative and sustenance. We all need sedative at times, but we live on sustenance. We owe our young people nourishing food, and we should concern ourselves with feeding the mind and satisfying a natural appetite for beauty. And what an opportunity we have.

THE CANADA COUNCIL

from the brief of the RAIC, one of many briefs submitted by organizations and individuals across the country, to the Royal Commission on National Development in the Arts, Letters and Sciences, 1950.

. . . THE ROYAL ARCHITECTURAL INSTITUTE OF CANADA submits that, in the public interest, there is need for wider fields of action by the various agencies of government dealing with the Arts and Sciences.

This Institute recommends the adoption of a system providing appropriations of, say, one per cent of the cost of all important government buildings for the incorporation of the Arts of Sculpture and Mural Painting.

That funds be made available by government to enable representatives of the various national learned societies, visual arts organizations, etc., to meet with representatives of other nations as organized by or through UNESCO, or through other international conferences or agencies having similar standing.

This Institute recommends co-operation between government agencies and the Royal Architectural Institute in the recording and preservation of examples of early Canadian Architecture, and the provision of funds by the Government for these purposes.

from the report of the Royal Commission on National Development in the Arts, Letters and Sciences, 1951.

THE PROBLEM for which we have been invited to find a solution may perhaps be expressed, though at the risk of over-simplication, in terms of the following factors which, it will be observed, differ considerably in complexity and importance:

a) There does not exist in Canada any government-supported body to do for the Arts and Letters and for the humanities and social sciences what the National Research Council does for the natural sciences and the technical crafts.

b) Unlike most countries of the world we have in Canada no advisory or executive body to deal with the question of our cultural relations abroad.

c) We do not possess in Canada a clearing house or a centre of information on the arts, letters, humanities and social sciences.

d) There are in Canada many voluntary bodies whose work is of national importance but whose resources are inadequate for their growth or even for their survival.

e) Although Canada is a member of the United Nations Educational Scientific and Cultural Organization, there is not yet established in Canada any form of National Commission for UNESCO; an undertaking to create such a Commission or an equivalent forms part of the UNESCO Constitution which Canada has accepted.

These are the principal though by no means all the difficulties which have been brought to our attention by so many public spirited organizations and citizens. Many of these problems stem, of course, from the stern realities of our geography and economics and for them there may be no full solution, although it is our belief that they may be mitigated by wise and determined action. We are faced, it seems to us by a threefold problem; cultural activity within Canada, cultural relations abroad, Canada's relationship with UNESCO.

We therefore recommend:
That a body be created to be known as the Canada Council for the Encouragement of the Arts, Letters, Humanities and Social Sciences to stimulate and to help voluntary organizations within these fields, to foster Canada's cultural relations abroad, to perform the functions of a national commission for UNESCO, and to devise and administer a system of scholarships.

from the address of the Prime Minister to the National Conference on Higher Education, Ottawa, 12 November 1956.

I HAPPEN TO BE THE HEAD of a government that does not manufacture the money it spends. It digs down in the pockets of all the Canadian taxpayers to get it, and we of the government are merely trustees on behalf of all those Canadian taxpayers. The proposals I am putting forward, I look upon as a good sound investment of the taxpayers' money and so do my colleagues.

My colleagues and I feel that the annual federal grants to universities should be continued and increased and we are prepared to recommend to Parliament at the next regular session that they be doubled.

We propose to hand the money to the National Conference of Canadian Universities to be allocated as if all eligible institutions were to accept their share of the total amount. If any one of them should feel that it cannot accept this assistance for the time being, we would propose to provide in our agreement with the NCCU that the money allocated to that institution be held in trust for it until it sees fit to ask for it. In this way, no institution would be penalized in the future for a previous refusal of the grants, and there would be no unjust discrimination against any group of taxpayers in Canada in this respect.

You will also recall that the Massey Commission made a very important recommendation with regard to the establishment of a Canada Council for the Arts, Humanities and Social Sciences. According to that recommendation, the functions of the Council would be to stimulate and to help voluntary organizations in the fields of the arts, the humanities and the social sciences, to devise and administer a system of scholarships in these fields, to foster Canada's cultural relations abroad and to perform the functions of a national commission for UNESCO.

My colleagues and I have considered this proposal very carefully – some of our critics would even say that we have studied it for too long – and we are now prepared to recommend the creation of the Canada Council to Parliament at its next regular session.

We want this Council to be as independent as possible from the government. We are in favour of government support for the arts, the humanities and the social sciences but without government control. Moreover, we expect that, if the Council is constituted as an independent body, private individuals and industries will be disposed to make contributions to the financing of its activities because they also have responsibilities in this field. In order to achieve this objective, we will ask Parliament to approve an endowment of $50 million for the Council in order to enable it to finance its activities from the annual income to be derived from the investment of that capital.

We would also propose to add another function to those envisaged by the Massey Commission for the Council. It would consist of making capital grants to universities in Canada equal to 50 per cent of the cost of specific building or capital equipment projects, with appropriate regard to the population of each province. For that purpose, we would recommend another appropriation of $50 million to be given to the Council and to be thus distributed by it over a period of ten years.

Mr Douglas Kertland

The President of the RAIC comments from Toronto, and the Chairman of the Canadian Arts Council (a delegate to the UNESCO Conference) comments from New Delhi.

MEMBERS OF THE RAIC will have noted with the greatest pleasure, I am sure, the announcement by the Prime Minister of the Federal Government's proposal to implement the Canada Council. As members of this Institute, we are vitally concerned in the strengthening of all the creative arts, but particularly our own and those with which we are allied; as citizens of this country, we are concerned that our increasing number of talented young people who are interested in the creative arts, have the opportunity to learn their chosen skill with some assurance of our support and to practise that skill in a Canadian environment.

We would certainly like to see far more scholarships for architectural students than we now have. There can hardly be any discipline where it is more necessary for the student to get around and see the world. No glossy magazine can ever give him the sense of a fine city square which has been carefully thought out and built. He must walk around in it. One would also hope that we might now get senior men of reputation from abroad who would talk to our local chapters, act as visiting critics in our schools and take part in conferences and public meetings.

The Canada Council will have a very critical role to play in the life of the country. And its success will depend in large measure on the continued interest and support given to it by professional associations such as our own and by the public at large. There is bound to be a great deal of work to be done before the Canada Council becomes an effective operating body, and an even greater amount of work to be done once the Council begins to operate; much of that work will no doubt, have to be done by voluntary effort. I am sure that members of this Institute will respond with enthusiasm to such duties as may be asked of them.

The role of the Council will be critical, I believe, because it represents this country's first major attempt at state sponsorship of the arts. We can learn something from the British experience with the Arts Council and with the British Council, but our regional character and our special traditions in this country demand that we start fresh and work out the job of our Council in the light of our special needs. In fact, we may find out a lot about ourselves and that elusive thing called Canadian culture just by trying to make the Canada Council work.

We may expect the new Council to act as a focus for the arts and as a pump primer. We have been counting on its coming into being for so long now, that no doubt most of its income will be absorbed by existing operations. As a focus it will be able to tidy things up, and as a pump primer it will be able to rescue some splendid activities which have been hardly able to meet expenses. But it seems to me that one of the main jobs of the Council will be to explain to individuals, to corporations and institutions, to communities of various sizes, to different levels of government, that it is everybody's job to make the arts lively in this country, with interest, with encouragement, with money, with genuine realization of how they can cheer up the whole Canadian scene.

It might be appropriate at this time to recall some other recommendations of the Massey Commission which lay outside the function of the proposed Canada Council, but to which the RAIC brief referred.

With respect to measures for the preservation of historical monuments, the Commission recommended that the Historic Sites and Monuments Board undertake a much more comprehensive program; that greater emphasis be placed on the restoration and preservation of buildings of purely architectural significance; that the Federal Government suggest to the Provincial Governments that they take suitable legislative action to protect historic sites and buildings now in private hands by scheduling them in the national interest as is done in Great Britain and France.

The Canada Council may be able to make our arts livelier, in a sense. It cannot of itself improve their quality. But if as a nation we begin to respond with a livelier interest in all the arts, the increasing impact of architects, painters, actors, writers, sculptors, on a given community will surely be reflected in the character and quality of its buildings and townscape. We can expect the public to become keener about the pleasures of architecture.

Mr John C. Parkin

All Canadian architects will have heard with delight the decision of our Prime Minister to introduce legislation in the new session of parliament to implement the recommendation of the Massey Commission, namely the formation of a Canada Council for the Arts, Humanities and Social Sciences. The architects of Canada have played an important role these last twelve years in bringing about realization of this important objective. The Royal Architectural Institute was a founder-member of the Canadian Arts Council, set up originally in 1945 to secure federal aid to the arts in Canada and to effect liaison between the principal Canadian societies in the arts. On the sound base provided by Mr Forsey Page, Mr Roxburgh Smith and other ardent architect-supporters of the Arts Council, we have now built an executive soon to represent 30 important Canadian cultural organizations. Our principal objective for many years has been to achieve enabling legislation for a Canada Council. Mr St. Laurent's wise and imaginative statesmanship has given Canada an opportunity of enriching our heritage possible in no other way. Here, in New Delhi, the Ninth General Conference of the United Nations Educational Scientific and Cultural Organization is in session at a critical time in world history. UNESCO has as its doctrine: 'Since wars begin in the minds of men, it is in the minds of men that the defences of peace must be constructed.' Our Canada Council will also act as our national commission for UNESCO, and therefore through UNESCO, and by projecting Canadian art and culture abroad, aid in constructing the defences of peace.

P.S. – This last weekend we visited Agra, saw the Tajmahal both in daylight and at full moon. This is the first building I've ever seen, not only to measure up to full expectations, but to exceed them. The rest of our weekend we climbed over Moghul ruins by the mile, visited a newly planned community – Faridabad and went for a camel ride. Very little modern work here – always a conscious striving for a nationalistic architecture. Minarets find their way onto every building. This weekend we will visit Chandigarh.

Design Factors in Building the Contemporary Church

BY PETER DICKINSON

IN WRITING THIS ARTICLE it is my intention to set down and discuss some of the questions raised at a recent round table conference at Victoria College on church architecture. The idea behind the conference was to go over the problems of building a church from scratch in one of the new housing developments. Many points were raised by the architects, church members, fund raisers and ministers whose job is to get the right kind of church and ancilliary accommodation for the community it serves.

Despite the fact that churches are needed in the new communities, there are only isolated instances where the sites have been made available in the planning stage. The result is that it is often extremely difficult to find suitable land in a central location and since houses must be built and occupied before a congregation can be formed, the land is only available later at inflated prices. Too much money goes into the land and not enough into the building and too often the site is cramped and unsuitable. Where no funds are available to purchase land before the community is built up, only the foresight and generosity of the developer can make a site available.

For the average new church a site of two acres is required to take care of present and future needs, together with provision for a certain amount of parking. One car for six people is the usual bye law requirement. Two acres is small enough and rules out the sprawling California type plan if adequate parking is to be provided. Also compact planning is essential in today's stringent economy. The next problem is that of funds. It was stated that $75,000 was the minimum sum required to build a 300 seater church for the average community. This is assuming that the worship room must be the first unit of the church that is built and that the church school, social hall and meeting rooms follow later.

This in itself is a contentious matter. Some ministers state that it is more important to provide space for religious instruction, meetings and social events in the first stage in order to build up a closely knit congregation to raise the necessary funds for the final building units. Further that religious instruction for the children and community enthusiasm for the project is the immediate need, and that classrooms can always be thrown together to provide temporary space for worship. However this phase of the programme may well prove the more costly part of the building.

Many present stated that regardless of the availability of funds a place of worship occupies the vital part of the building programme and that the church could never and should never endeavour to be a community centre in the sense that the Y.M.C.A. is a community centre. Further that this modern trend was tending to obscure the vital purpose of the church as a house of worship.

It was said that there was not enough feeling of fellowship engendered by the prosaic and uninspired plans of many architects; that the narrow uniform cruciform plan should be examined and rejected if found wanting. 'U' shaped or diagonally opposed seating with the altar moved forward into the centre was more likely to inspire group participation. There are some recent and outstanding examples of such church planning both here and in the States.

A few present felt that the traditional position of the choir in the nave tended to detract from the sacrament and that too often the choir entertains the congregation instead of leading the hymn singing. The solution suggested was that the choir be installed in a balcony behind the congregation.

One member felt that the emphasis on group participation and fellowship was not for the Anglo-Saxon race where religion was a private and individual matter and one should be able to laugh or weep without being observed or spied on by the other members of the congregation. This is nearer the Gothic tradition of a remote altar and distant perspective, a dim religious light and stone floor with hard seats and blinkers on the pews.

One member felt that the new churches were cold and large and lacked the warmth, intimacy and crowded conditions of the little old wooden church house. Yet another felt that if warmth and crowded conditions produced fellowship, you might as well say that the best place to worship would be the Bloor Street car in the rush hour.

One subject dwelt on for some length was the matter of whether our new churches being built were functional and whether this was good or bad. It was pointed out that the older generation tacked this adjective on to any building more progressive in style than an eighteenth century building, forgetting that these buildings fulfilled their functions more perfectly in their day than many fine contemporary buildings in this day and age of synthetic materials and synthetic needs; that the emotional or spiritual

content of building is a very real function of religious buildings; that a functional building was a building built within the budget to exactly fill the present needs of the congregation and provide for its future needs; that waste space, unnecessary detail, falsework are not part of a functional design; that a truly functional church is a sincere and passionate statement of the finest aspirations of the human race.

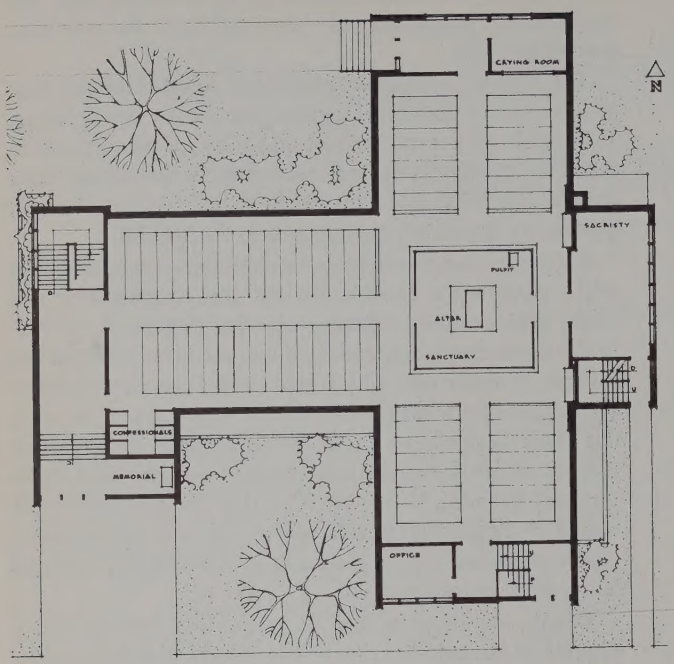
There followed a discussion as to whether recent churches have succeeded in creating a vital and living place of worship and whether we have seen the last of the copybook memorials to Gothic and Georgian architecture. Traditionally the church has been the mainspring and inspiration to the arts and to the art of architecture in particular. The early Gothic cathedral was a new invention in the field of architecture at its inception and over the centuries of its evolution, new skills in the arts produced a succession of styles and motifs distinct and separate from the early work. Many cathedrals sprouted wings and chapels that had little likeness and cohesion other than the religious inspiration. The present day Gothic churches still being built bear none of the mark or stamp of originality, none of the spontaneity or skill in detail of the master work. It is most unreasonable to suppose that it was ever possible to create anything but a Christmas card resemblance to a Gothic church when neither the spirit, public participation or spontaneous expression of art was at hand to be employed in the design and execution of the work. Beside from all this there is not one thousandth of the funds available today.

The general consensus of opinion was that the contemporary church had won the day and carried the field; that of necessity, living architecture was the only work which could be inspirational in character since the history of religion is only a small part of religion itself; that contemporary architecture appears to be in a confusing and transitionary stage that only time will show the true masters of the art.

The tragedy is that congregations do not take the time to seek out the architect that can give them a fine building. Ultimately, of course, the responsibility for promoting fine buildings rests with the architects that are interested. They cannot blame the 'ignorant public' when they are the only people equipped to properly inform the 'public'.

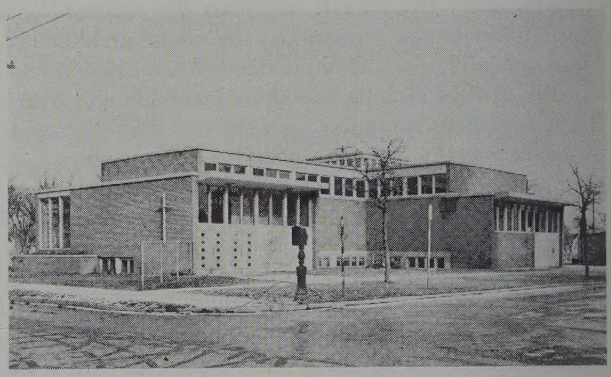
However, many architects work under great difficulties when planning a church. Firstly, the congregation can never decide amongst themselves what they need. Secondly the accommodation required can never be built for the budget. Another difficulty is that there is no way of determining exactly what the cost of the building will be since the price depends on competitive bidding, and circumstances make the contractors hungry one day and disinterested the next. It was decided that the architect's task would be lightened considerably if the new congregation could be guided in their planning and thinking by a central body with more experience.

Finally, the length of life of a new church was discussed. Physically seventy-five years was considered reasonable. The real future however was the length of life of the community. Many down-town churches would still be functioning if the community which nourished them had stayed in the area instead of being forced out to the suburbs. Surely the time must come when town planning will come of age, the flight to the suburbs will be over and our City Centres will once again be revitalised.

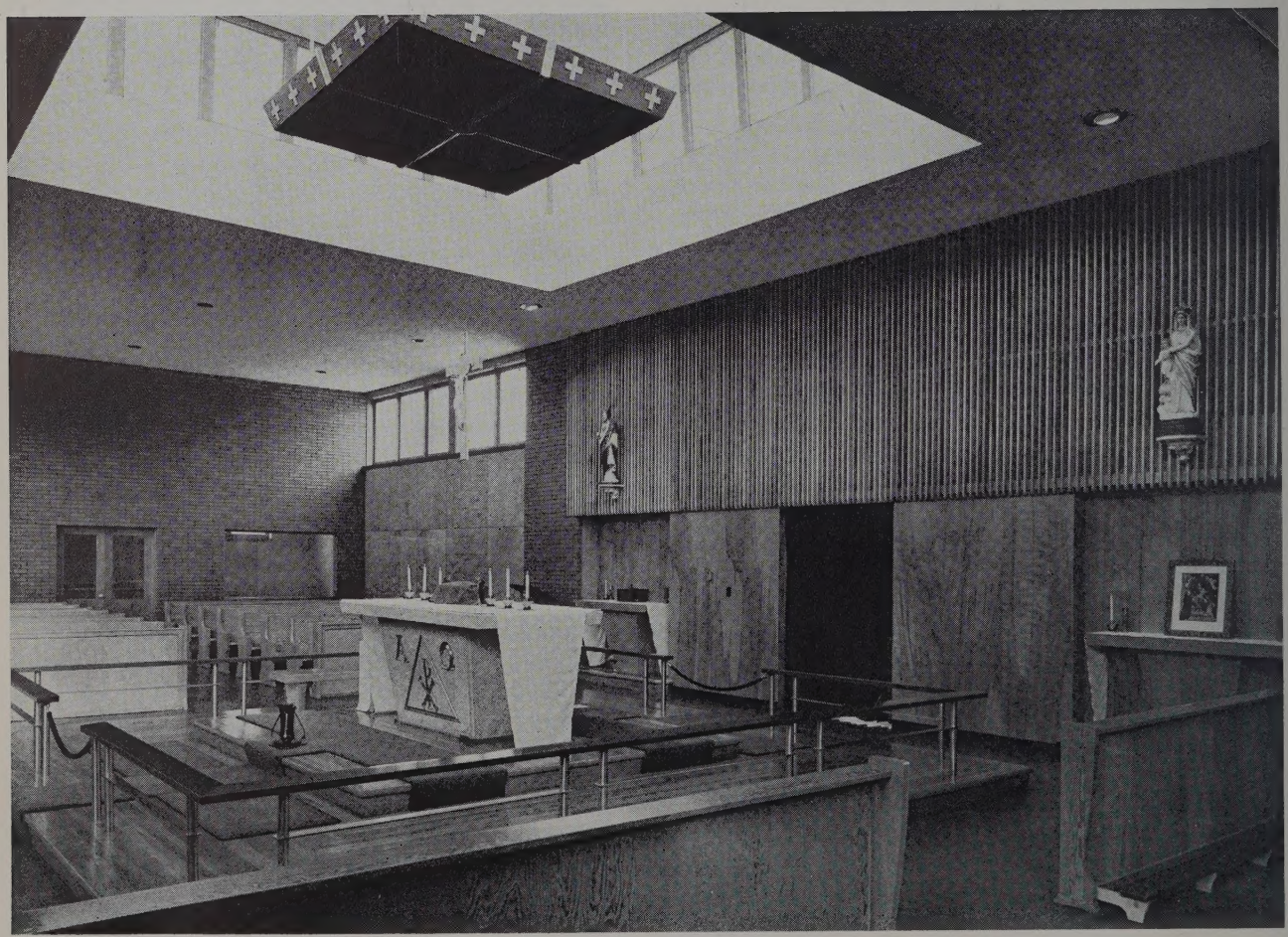


Our Lady of Victory Memorial Church
Winnipeg, Manitoba

Architect, Roy Sellors



PORTIGAL & AYERS



PORTIGAL & AYERS

Our Lady of Victory Memorial Church

PORTIGAL & AYERS

As the name implies, our Lady of Victory is a War Memorial Church. Provision had to be made for a suitable memorial incorporating mementos from the various battlefields of the Second World War.

The plan is cruciform, recalling the early church form. This made it possible to free the sanctuary and altar with the Mass being said facing the people. The lighting over the altar is by means of a raised lantern at the cross over. The location of the choir is somewhat unusual, being at the front of the church over the sacristy, with vision limited by means of a decorated wooden screen.

School is temporarily being held in the basement so that provision had to be made for access directly from the street to the south. This also accounts for the small office serving also for the school nurse.

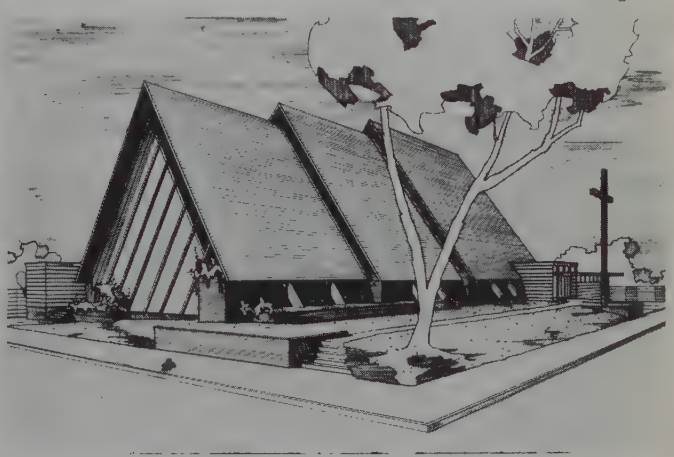
It is hoped to replace the existing plaster statues over the side altars with wood carvings in the future. The design of the Stations of the Cross was not the responsibility of the architect.

RANSON

Avonmore United Church
Edmonton, Alberta

Architects and Engineers,
K. C. Stanley and Company

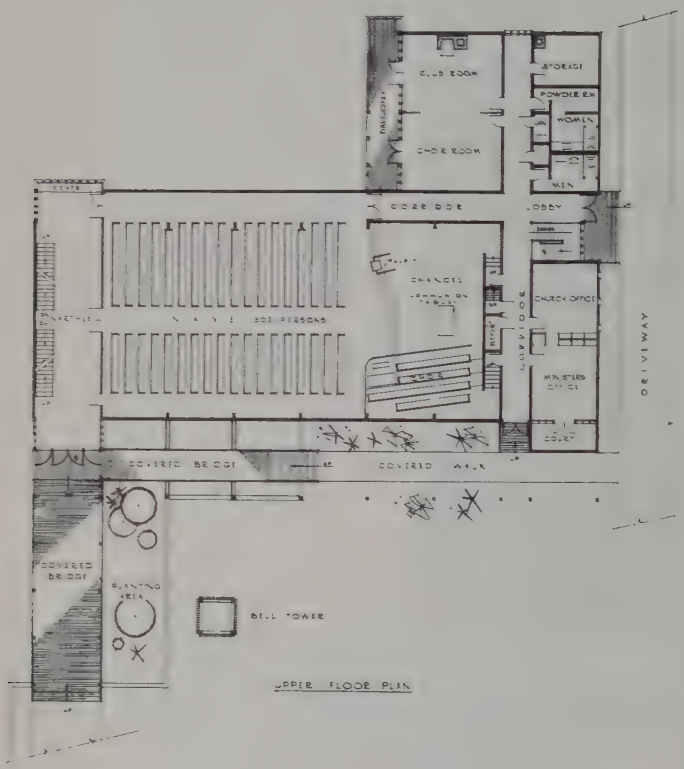
Lacking the financial ability to house their congregation in facilities which they require, this church group have planned for the ideal and have taken a giant step toward reaching their goal. Although interior finishes and furniture are lacking, and exterior landscaping is non-existant, a comparison of the photograph with the rendering would indicate that they are two-thirds the distance to their goal.



Highlands United Church, North Vancouver, British Columbia

Architect, R. William Wilding

Structural Engineers, Read, Jones and Christofferson
Mechanical Engineer, D. W. Thomson
Electrical Engineer, Simpson and McGregor



Seating Capacity — Nave, 302; choir, 40; future balcony, 78.

Site — The building is situated in a newly developed suburban residential area in the wooded area at the base of Grouse Mountain. The site has a steep ravine with a stream running through it.

Accommodation — This building, built to replace a small temporary building, will provide complete worship, Christian education and recreation facilities for the church congregation.

Structure — The building has been conceived as an all-wood structure. The floor system is joists on post and beam. The roof of the nave is cedar-plank supported on glue laminated arches. The remainder of the roof is cedar plank on post and beam. All interior partitions and exterior walls are of frame construction.

The exterior finish is stained rough cedar board and batten. Spandrel panels are cement and asbestos board. The roof is finished in bleached cedar stakes. The interior walls of the nave are finished in plywood panels. The remaining interior wall finish is sand-finished plaster.

Design — The building has been conceived to fit into the site with as little change to its natural topography as possible. This is achieved by having a building which is one storey at the street side and two storeys at the rear or ravine side. A covered bridge is used to connect the main entrance to the street.

The interior of the sanctuary has been designed to emphasize the chancel, using richer finishes in this area and providing a large skylight to flood it with light. The nave is finished in simple materials and will be dimly lit.

Knox United Church, Brandon, Manitoba

Architects, Smith, Carter, Katelnikoff

PORTIGAL & AYERS

The Site — 140' x 180' level property bounded by streets on three sides. It is located on the intersection of two major thoroughfares.

The Program—Detailed questionnaires were filled out by leaders of all organizations and groups in the church. This information provided the complete framework for developing the planning program. Floor areas and cost estimates were established prior to development of sketch plans. As a result of this detailed preliminary survey sketch plans were finalized in a minimum time.

The Plan — The new church edifice was required to provide complete facilities for a congregation of 600 families. From the beginning, major emphasis was placed on the requirements of the Sunday School. As a result the building plans provided an auditorium seating 500 and separate permanent classrooms for 25 Sunday School classes. In this way, Sunday School for all departments can be carried on simultaneously with the morning church service without disturbance.

Costs — General contract for building, $189,000; pews, carpets, furnishings, $24,000.

Construction —

Foundation and floor slabs — reinforced concrete.
Exterior walls — brick.
Roof structure — laminated wood beams, joists and N.I.S. roofing.
Floors — Terrazzo in narthex, nave and chapel. Maple in auditorium. Asphalt tile or carpet in other areas.
Walls — Brick and plaster in narthex and nave. Plaster and birch plywood in other areas.
Ceilings — Acoustic plaster and acoustic tile.
Glazing — Hammered Coolite in nave clerestorey. Other areas — cathedral glass and double diamond.
Heating — Hot water boiler, fin convector units.

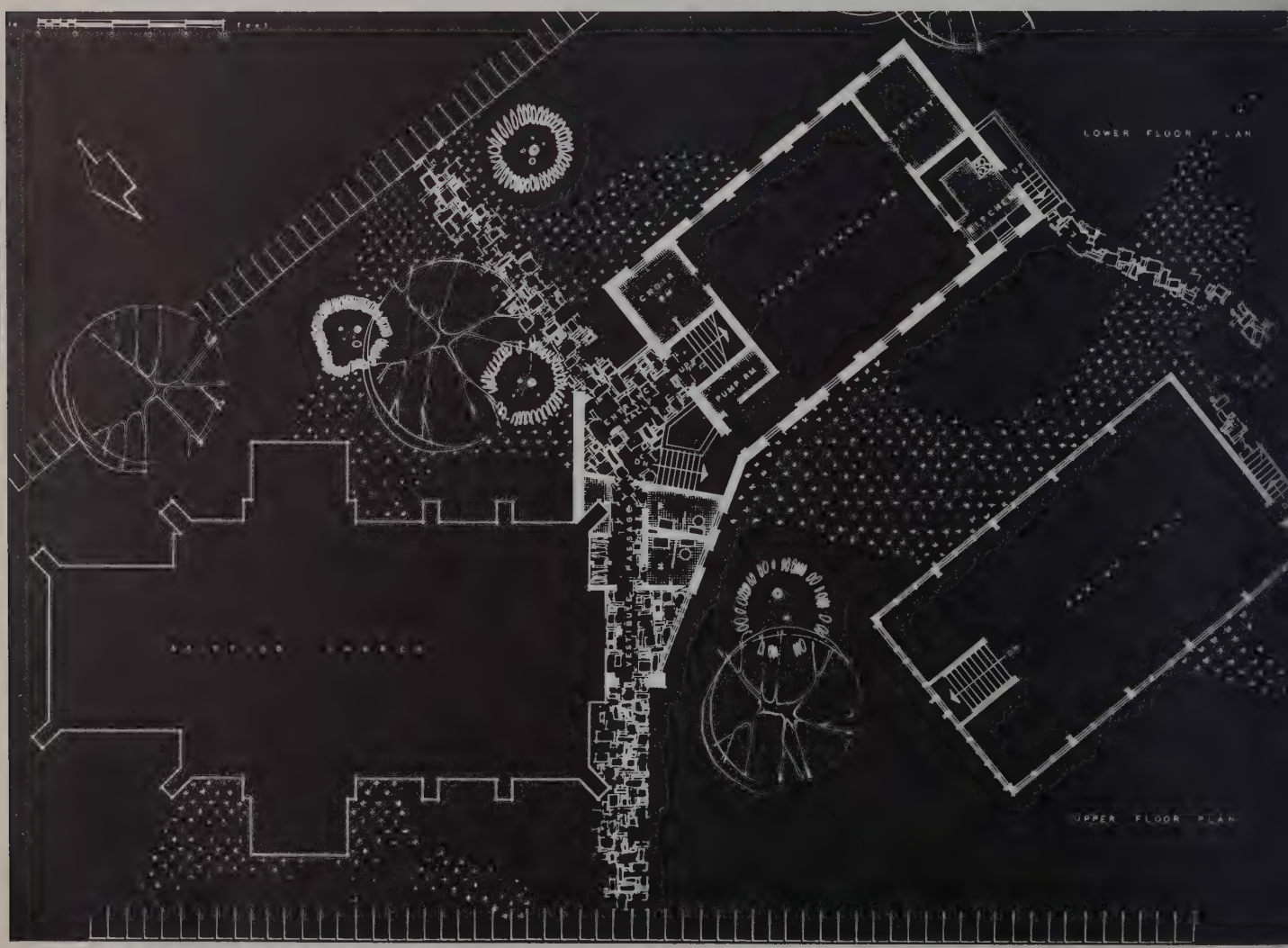
PORTIGAL & AYERS

St. John's Anglican Church
Sunday School and Parish Hall
Lakefield, Ontario

Architects, Craig and Zeidler

THE ROY STUDIO

Entrance to Sunday School



THE ROY STUDIO

The program called for the provision of recreational and additional Sunday School facilities for a small village congregation. The church was erected in 1866 by the early settlers in this district replacing their original church which was built in 1856. We felt that the parish hall, as an addition to one of the historical buildings of this district, should fulfil three requirements:

1) *It should harmonize with the old.*
2) *Its massing should be secondary to the main church.*
3) *The building should express the fact that it was erected with the materials and structural knowledge of our time.*

The existing entrance to the church was left and connected from there with a small wing to the new building. The church can be entered from both streets. The lower floor is 4'-0" below ground level, while the parish hall floor is 5'-0" above. The hall, which is used for multiple purposes, has a solid wall facing south, while the east and west windows are protected from the sun by wide roof overhangs. The north gable is all glass allowing a view from the hall through to the old church. The stones for the new addition were from the same quarry as those for the original building. The new granite wall is carried around the new building at the height of the old vestibule. Above the stone wall hovers the main roof supported by Glu-Lam arches.

The building was designed in 1952, and built in 1953 at a construction cost of $41,198.00, and a square foot cost of approximately $8.50.

STUDIO ALAIN

Chapel
Deaf and Dumb Institute
Montreal, Quebec

Architects, Larose & Larose

Ceramist, Claude Vermette
Structural Engineers, Lalonde & Valois and H. Lord & Co.
Mechanical Engineers, Leblanc & Montpetit
General Contractors, J.-H. Dupuis Ltée.

Trinity College Chapel, Toronto, Ontario

Architect, Sir Giles Gilbert Scott, O.M., R.A.
Associate Architects, George & Moorhouse

Structural Engineers, Wallace, Carruthers & Associates Ltd.
Mechanical Engineers, Karel Rybka & Associates Ltd.
General Contractor, Dickie Construction Co. Ltd.

The Processional Cross
Designed by A. Scott Carter, R.C.A.

When trinity college accepted federations with Toronto University, Darling & Pearson prepared sketches for a collegiate group of buildings on the Hoskin Avenue site. Their scheme was a rather grandiose one, comprising two quadrangles, and the front portion only was built in 1925. Additions comprising further residential and common rooms and a Great Hall with kitchen and service were added in 1940, but the chapel was still accommodated temporarily in what had been planned as the library in the original building, and is now used as a Convocation Hall.

Preliminary sketches for the new chapel were started in December, 1941. These sketches were similar in site and plan to the chapel as ultimately built, but the seating faced inwards in the traditional manner of the College chapel. It was later decided on account of the closer relation of a college in these days with its Alumni and the general public, to install pews facing the altar as is customary in a parish church.

Sir Giles Scott, O.M., R.A., the eminent exponent of Gothic architecture, was approached, and in September, 1946, sketch plans of the proposed chapel and data regarding the site and the existing west wing were sent him for study. Final sketches are dated October, 1950, and a month later Sir Giles spent a week in Toronto studying the situation. Detailing was commenced in February, 1951, but it was not until October, 1952, that working drawings were started. Contracts were let, construction began on July 3, 1953, and the building was completed for the Consecration Ceremony on November 20, 1955.

The chapel proper is 105 feet long from narthex arch to reredos, behind which is a sacristy in the apse. The width of the chapel is 26 feet and the height to crown of vault is 47 feet. The side chapel is 16 feet by 43 feet and is to the west of the sanctuary from which it is separated by archways, and from the chapel crossing by a bronze screen. The total seating capacity including side chapel is about 200 in fixed seats. A vestry adjoins the west transept, and outside access to the chapel is through the porch in the east transept.

Entrance from the main corridor of the College is at the east end of the narthex with a broad flight of stone steps leading down to the chapel floor six feet below. Above the narthex entrance the carved tympanum, *Puer Nascitur Nobis* was designed by Emmanuel Hahn, R.C.A. On the west of the narthex is an outside entrance to the driveway, and a stone spiral stair leading to the gallery and the roof. The gallery with main access from the second floor of the College, contains the organ console and seating for a choir of 24 voices. The organ chamber is accommodated in the old west wing, the main wall of which has been pierced for the tone opening. Below the chapel is the reading room with access from the main corridor and direct exit to Hoskin Avenue.

Exterior walls of the chapel are of Credit Valley rubble stone and the cut stone work is of variegated Indiana limestone. The interior walls and vaults between the cut stone work are finished in grey stucco and the floor is of Roman travertine.

An interesting feature is that the apse walls span the tunnel from the central heating plant of the University of Toronto to its northern buildings.

The chapel is an authentic Gothic structure, built of solid masonry with load-bearing walls carrying a self-sustaining vault rib system with intervening spaces of acoustic treatment. Roof loads are taken off the vaulting by steel trusses.

The design is in a much simplified perpendicular Gothic style and is definitely not a copy of any existing building. Architects should not be daunted by the thought that everything had seen said in traditional architecture. The aim in church design should be to incorporate the spirit of the words of the liturgy "Lift up your hearts!" Numerous visitors have commented on precisely that effect when first entering Trinity Chapel and noting the clean, un-cluttered lines, the traceried windows and the airy proportions of such a small building.

The heating is carried on the existing steam plant of the College, and consists of two air conditioning systems in the basement, one for the main chapel, and one for the side chapel and reading room which require a more continuously sustained temperature. Insulated tile ducts built into the masonry walls discharge warm air at the sills of the chapel windows. Steam pipes under the walk space behind the parapet walls prevent accumulation of ice and snow on the roof.

The lighting is by means of vertical fluorescent panels recessed in the sloping faces of the piers on the altar side so that the congregation does not face the source of light. These panels are controlled to give various degrees of illumination.

Hoskin Avenue view from the south-east

The Sanctuary

The stair turret

Maitland Cemetery Chapel, Goderich, Ontario

Architect, Philip Carter Johnson

General Contractor, David Ross

RON NELSON

Entrance to the Chapel

ARCHITECTURE can only exist if there is a real need to build for a specific use. The stronger and more understandable the need, the better the architecture.

I think it is reasonable to say that our best buildings are our industrial buildings. They are the most free from self conscious design – the best of them are honest and well organized expressions of specific purposes, reflecting the clear thinking and convictions of the owners. The same thing may be said (and has been) of engineering projects – dams, bridges, grain elevators. There is no room here for dishonesty or prettiness. That our industrial and engineering projects are our best architecture is rather damning to both our spiritual institutions and our architects. It shows either a lack of conviction or an inability to communicate on the part of the spiritual leaders, and a lack of understanding and conviction on the part of architects.

The results of all this are especially discernible in our churches. In the past, churches and temples were our great buildings, not, I am convinced, because of proportion or symmetry or stained glass or flying buttresses, but because these churches and temples were fundamental to existence. There is of course a certain greatness in size alone, a characteristic common to modern engineering projects and ancient cathedrals, yet neither the Parthenon nor Ste. Chapelle are large.

This lack of conviction in modern church architecture is even more evident in modern liturgical art. We are too concerned with proportion, line, colour, harmony, rhythm. If we start out to say something to people, to bring to them something real and fundamental and vital, how absurd to worry about proportion. Proportion is a result, not a means. I don't know whether there is any cure for this. Perhaps time will reawaken in us a realization that to design for the spirit of man is just as important as to plan efficient factories.

Churches of course are not our only buildings showing a lack of spirit. Our schools are no better, they are as a rule dreary affairs (despite the bright new paint) that ignore humanity (we blame this on the low budget or the Department of Education "No Frills").

For the architect designing churches or any building for any fundamental human use, some kind of conviction is necessary. It is not enough to be concerned with form, beauty, effects – cleverness is no substitute for conviction. We are dealing with people, one might almost say souls; we are taking it upon ourselves to create environments that may, and in many cases should, have a great influence; how essential it is that we understand the need of the people who have come to us, and that we appreciate that need through personal conviction.

St. Hilda's Memorial Anglican Church
Toronto, Ontario

Architect, Philip Carter Johnson

Structural Engineers, C. C. Parker & Associates
Mechanical Engineer, John E. Stott
General Contractor, Fassel & Baglier Construction Co. Ltd.

The south elevation

Nave looking toward the chancel

The north front

The Beth Tzedec Synagogue
Toronto, Ontario


MAX FLEET

The sanctuary

The foyer


MAX FLEET

The project was a challenge, to which the complex nature of the site added its share of difficulty. A difference in level of some thirteen feet between the north and south elevations of the property, together with the fact that the plan of the site was like an elongated rectangle bent in the middle, did not simplify the task. It became apparent at once that a rectangular building could not be parallel to more than one road and that, to be successful, a building must be designed to conform to the six-sided site of which no two sides were parallel.

The architectural solution finally determined upon was to design a building composed of six facets all mathematically related to each other and to the surrounding streets and resolved in the octagonal chapel. All walls of the building are parallel to one of the chapel walls and the chapel itself is intended to fit into the composition like a brilliant jewel in its setting. As it faces east, the sanctuary is on a different axis from the school and administration units, yet its louvered walls are in turn parallel and related to the walls of the chapel. The intricacy of the plan, with its many facets, reflects the intricacies of life and the many facets of the Jewish faith.

It was the architects' intention that all of the more important interior spaces should open visually one into the other from the foyer, in order to weld the separate parts into a unified whole. The extent to which this objective has been attained can be judged by viewing from the mezzanine the forecourt and school playgroud, the school auditorium, the chapel with its brilliant furnishings, the sanctuary through the gold glass of the louvered walls and finally the assembly hall, with its glittering chandeliers. From this point of vantage, the clarity of the design is emphasized.

Largely because of the complexity of the plan, it was not only possible but highly desirable, to use simple brick interior walls and plain surfaces to achieve an effect not only of good craftsmanship but actually of richness and quality.

The cantilevered roof slabs, which have the effect of being suspended slightly above their supporting walls, create an ethereal and endless quality to the architecture.

Architects, Isadore Markus, Harry B. Kohl, Page & Steele

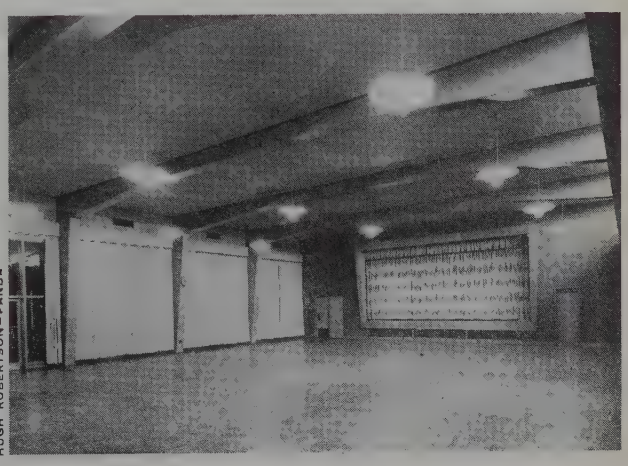
Sculptor, Ernest Raab
Structural Engineers, Hooper & Yolles
Mechanical Engineer, Lionel Ginsler
Electrical Engineer, Claire Dent
Acoustical Engineer, Hyman Goldin (deceased)
General Contractors (Yolles & Rotenberg (Educational Centre); Fried Construction Co. Ltd. (Balance of Project)

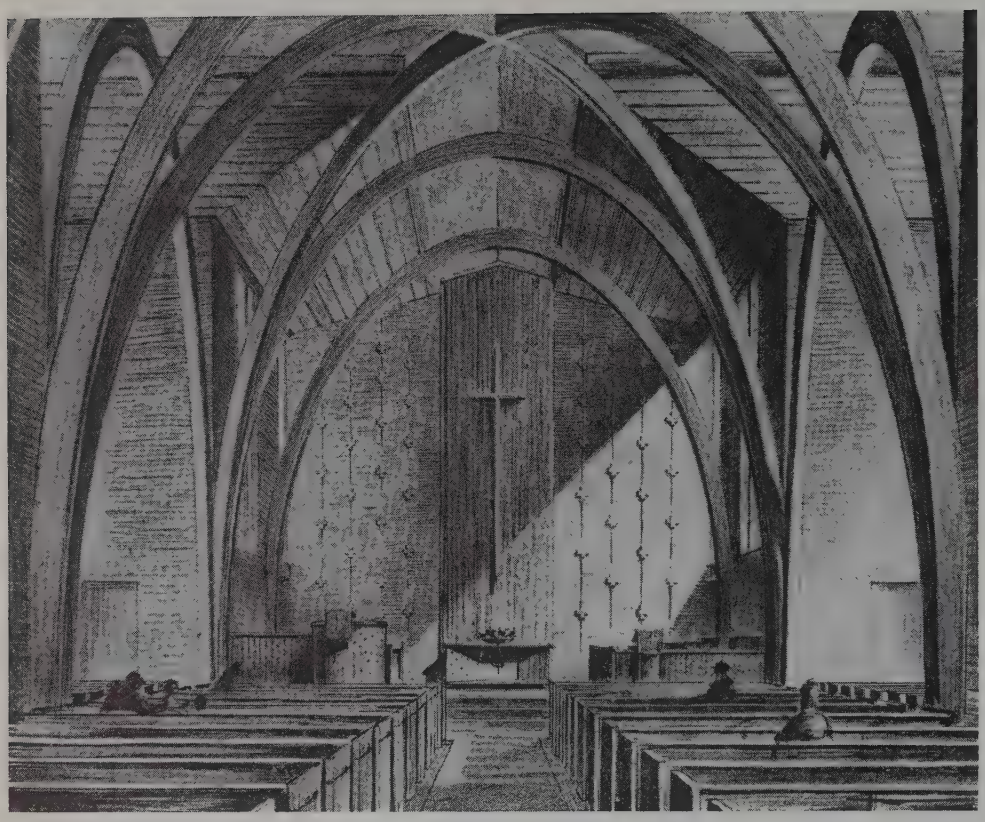
Bathurst Street entrance

Detail of main entrance

The chapel

Assembly hall





The nave
looking toward the choir

St. John's United Church
Hamilton, Ontario

Architects, Bruce Brown & Brisley

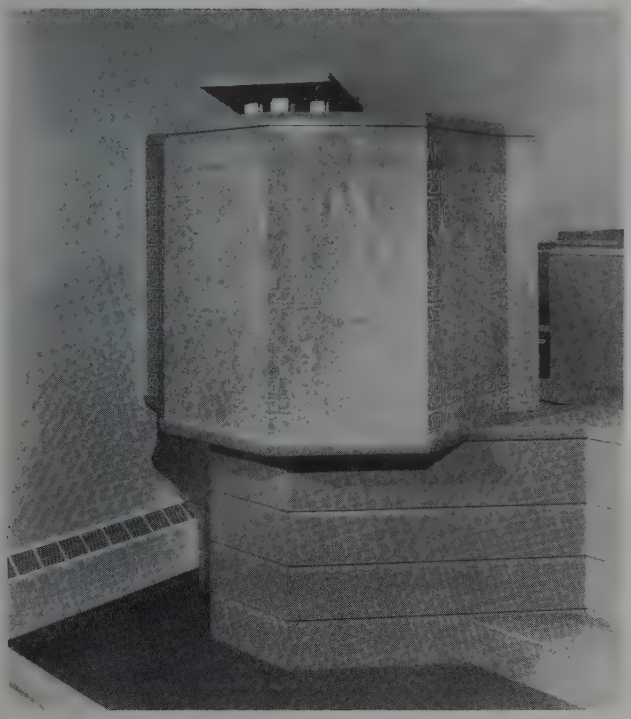
Baptismal font and lectern

HUGH ROBERTSON—PANDA

St. Paul's United Church
Toronto, Ontario

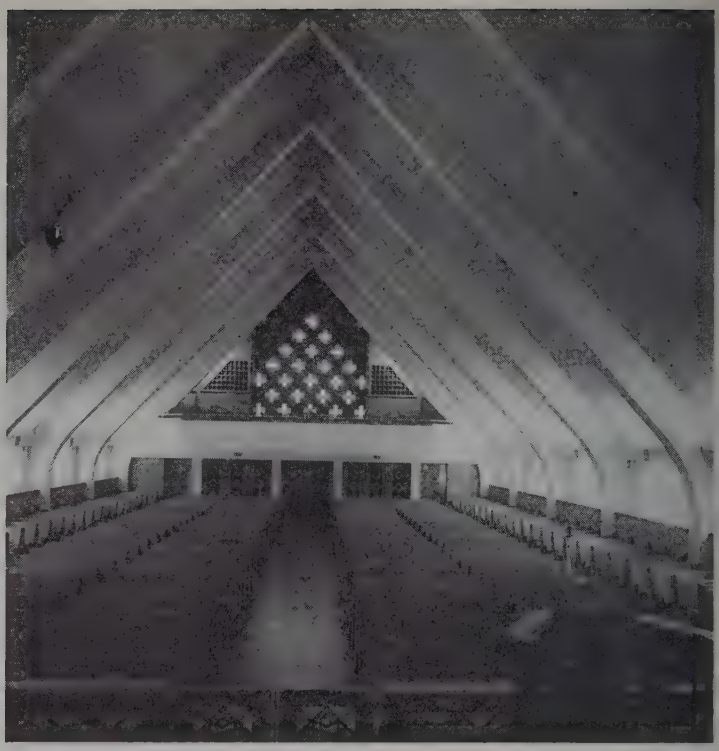
Architects, Bruce Brown & Brisley

The pulpit



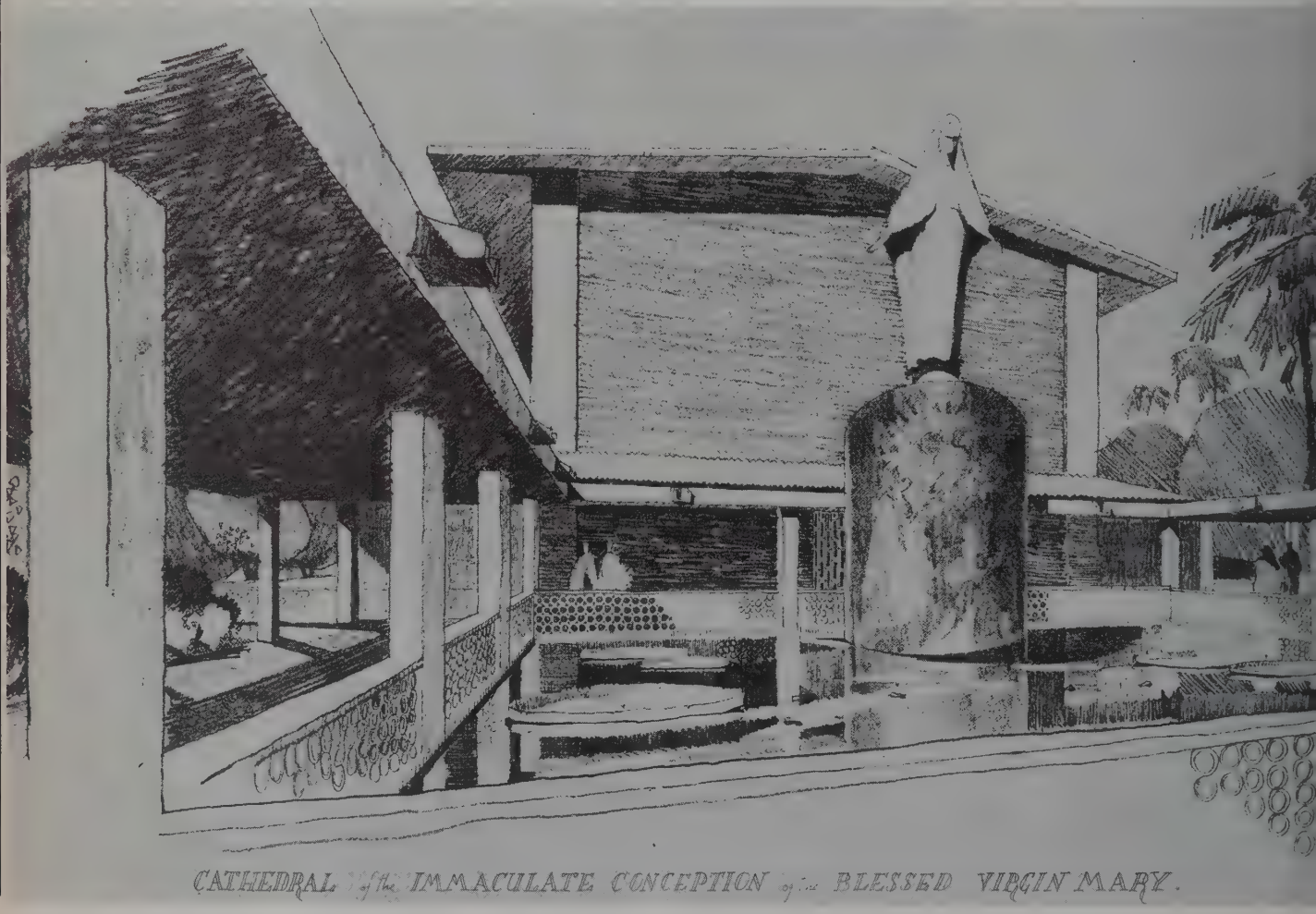
HUGH ROBERTSON—PANDA

HUGH ROBERTSON PANDA

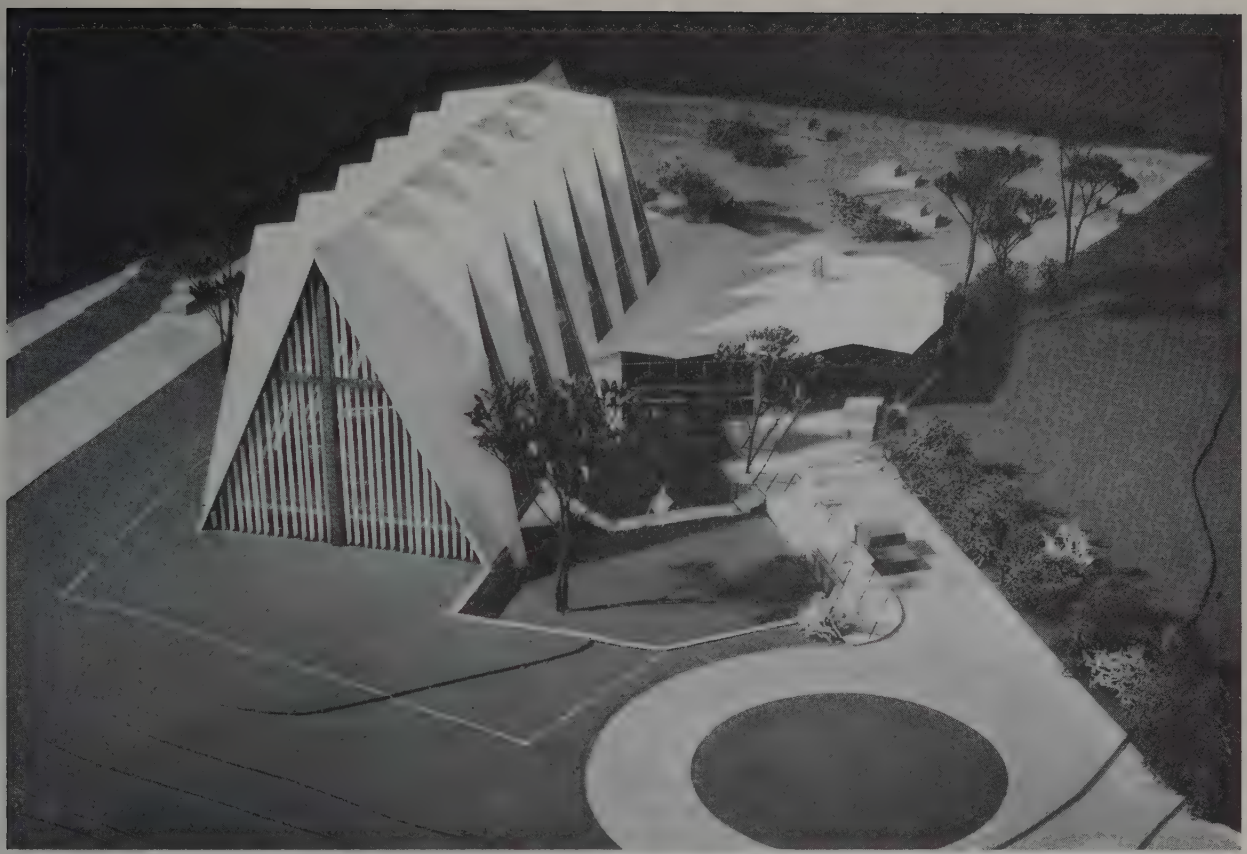


St.-André-Hubert Fournet, Montreal, Quebec *Architects, Roux & Morin* *General Contractor, Benjamin Robidas*

Atrium and baptistry



Dacca, East Pakistan *Architects, Gardiner, Thornton, Gathe & Associates*



Model showing building and layout of grounds

Construction photograph

Yorkminster United Church
North York, Ontario

Architect, James A. Murray

Notes on Church Architecture

BY EBERHARD H. ZEIDLER

THROUGHOUT THE WORLD a revival of Christian spirit has taken place and this revival has found its visual expression in new church buildings. However, unlike former ages, our time has not manifested this feeling in a unified architecture but has created a confusion of forms and eclectic styles. This situation has not arisen because the possibility of a unified style was lacking, but because contemporary architecture lacks the understanding of the public.

I do not think that we can discuss church architecture without involving the principles of architecture. *Architecture* means more than providing shelter for human activities. It is more than mere buildings. It is life, or, more precisely, the *visual expression of life.* In a living organism all parts have a certain function vital for the whole but related to each other in a definite order, subordinate, equal, or superior. Similarly, we find the different factors of architecture related to each other. They are all necessary, but while some can be missing, the elimination of others would mean the decay of the whole.

To comprend modern forms we must look for the factors which created modern architecture.

Creative design means exploring the unknown, stepping beyond the boundary of the form world we are accustomed to. The question of why we must do this will remain unanswered as this urge is propelled by the same forces that govern life. But is not this creative power the force in which man feels his divine origin and can sense the divine power of creation? We must search for the basic principles of architecture, as this philosophy is the only guidance along the route into the unknown. The final step will be done unconsciously; but this philosophy will enable us to analyze the created form. This analysis is the only check we have to select among the number of "mutations" the right form.

Creative power has accelerated man through history. The moment he has developed a form this power forced him to make it obsolete by creating a new expression. However, that does not mean the old forms have lost their values and do not represent the culmination of a certain era. However much forms and expressions will change, the force which has brought about form will remain the same. It should not astound us when we investigate some of the writings of other ages to find men whose principles about building equal the thoughts developed by modern architects. However, the existence of a style as such in a historic sense was unknown in former times. Forms were developed as an expression of emotions and techniques unconscious of their existence in a style. Thus we find in medieval cathedrals the coexistence of many architectural periods moulded into one building.

Perhaps the discovery of an architectural style history was one of the reasons the nineteenth century lacked creative design. Forms were taken as a final result and not as a transparent container expressing the ideas of an age. This growth from the unconscious into the conscious stage of design occupied nearly a century producing an era of eclecticism.

Today we cannot design without knowing and steadily exploring the maxims of architecture. That does not mean we have a dogma of design or a rule which forces us into stagnation. Just the opposite. It gives us new freedom to guide all our creative power in the right direction instead of having it wasted in failure. This knowledge of our growth from the unconscious into the conscious makes one phenomenon obvious. Modern architecture can no more be comprehended if the public is guided by untrained feeling alone. An original Rembrandt and the copy of it might look alike to the unknowing but that does not mean their values are the same.

What causes man to build churches? It is his belief in God and the expression of this faith into forms of worship. Is it then wrong to assume that the main function of a church is to create *religious atmosphere?*

These statements might be accepted without argument but what is religious atmosphere? Can we say it is the emotion in which we sense a divine power around us and the assurance of salvation? Can the churches of today create religious emotion?

Many critics say that our churches lack the emotional qualities historical forms seemed to produce, implying that we should reuse ancient forms today to create religious atmosphere. However, they forget that these forms express the Christian feeling of another era. Here we come to the vital point. Religious emotions of Christianity have undergone changes in the course of history and consequently with them the resulting architectural forms.

What a tremendous difference there is between Romanesque and Baroque, Gothic and Renaissance! Certainly the architectural expression in those styles was widely determined by structural knowledge but it is useless to argue whether it was structure which created form and in turn brought about religious feeling, or whether the religious feeling looked for the structure to express itself.

Let us compare the religious feelings and the resultant forms of three architectural styles — early Romanesque, high Gothic and German Baroque:

The Christian of the eleventh century saw the world and God through the rigid dogma of his Church. All things were logically related to one another in a fixed position, each subordinated to God and seen through the scholastic philosophy of faith and reason where religion and philosophy are one. Early Romanesque architecture reflects this rigid theology in heavy clear form elements set together in a dogmatic order, each form retaining its individuality but the whole is forcefully fused together in a stern atmosphere of awe. The worshipper feels that he is earthbound and that God rules from above.

The thirteenth century, with St. Thomas Aquinas, brought the separation between philosophy and theology. Religious logic gave way to mysticism reflected in the complicated Gothic structural system where forms appear to be different from what they are. The flesh was abnegated and the soul was lifted close to God. The heaviness of stone — over-emphasized in Romanesque — disappeared and was made to seem light, flying upward. Suddenly, the nave became vertical, soaring up, reaching for a union between God and man.

Exuberance in religious emotions brought about German Baroque. It was a Christian exuberance which had experienced the worldliness of Renaissance and the knowledge of a Leibniz. In Baroque, architecture tried to step beyond its boundaries, using for its purpose elements native only to painting and sculpture. Building became a theatrical setting designed more to glorify the worldly powers which created them than to glorify God.

We have touched upon the religious forces behind other styles of architecture, but what is our religious emotion today? God has not changed but our understanding of Him and our approach to Him has. We do not look at Him any more through the eyes of a medieval or baroque man. Atomic physics has given us a new concept of God. It has shown us more than ever that God is beyond the reason of

Heavy-clear form elements set together in a dogmatic order

man. Man, today, is searching for a deeper understanding of God.

No single form will ever be the final expression of religious atmosphere although many forms have created it: the enclosed – the open, the dark – the light, the humble – the monumental. All have succeeded if they expressed the truth of their age.

Religion is a search for truth and a church is the projection of that into concrete form. If we want to build a church today, truth can be the only approach. We do not know what forms we will create but we know the means by which we can ultimately achieve architectural forms – the feeling our time creates in us and the knowledge our time has ready for us.

So, finally, there is not one specific form; but the truth of the spirit behind the form which creates religious atmosphere to us through stone and steel.

Function and philosophy might be the principles to bring an expression about but the basic tool to visualize form is the *method of construction*. One of the maxims of modern architecture calls for truthfulness in structural expression.

If we study religious architecture of the Middle Ages we will find that it was the daring spirit in which its builders used the growing knowledge of construction which kept these styles great and vital.

It is interesting to study the flow of forces in a Gothic cathedral. Elements whose purpose seem to be solely to enhance the expression, suddenly reveal their structural necessity.

The flying buttress takes the thrust resulting from the vaulted arches, or the added weight of the pinnacle deflects the resultant force from the flying buttress. Nearly all elements are structurally essential for the whole and cannot be eliminated. Beauty is not achieved when we cannot add any more but when everything is so vital that we cannot take it away without destroying the whole.

Our time has given us an abundance of structural methods. The degree to which we will succeed does not depend on how strange and novel the structure, we choose to form our church, will be, but how we can mould this structure into the overall composition as an inseparable part.

Function is part of any architectural building. The misunderstanding of its position within the other factors of architecture has led to utter confusion. "In the Cathedral of the Middle Ages economy, comfort and good acoustic properties were all cheerfully sacrificed for the magnification and glory of mystery in a fashion to overwhelm the worshipper". Mumford goes on to say that this was true functionalism in the medieval sense. The medieval service contained no sermons requiring acoustical qualities but the echoing stone rather reinforced the liturgical music. Comfort during the service was not demanded in a time when people found exultation in self-punishment and self-abnegation – in an era where lust of the flesh was regarded as sin.

Function in a modern church has to be re-examined in the light of the needs of today to be properly evaluated among the other factors which will create the final form.

Today the church has to fulfil an utterly different function than the medieval cathedral. Not only has the form of worship changed, but also the church itself. Today, it is a meeting place and centre of spiritual and social life, demanding active individual participation. Here the church returns to man of the 20th century something which he has been robbed of by the techniques and economies of our time.

Our economical development, geared to raise the standard of living, has separated man more and more from his natural connections to his fellow men. The dread of economic insecurity, lonliness and lack of social activity, are the *psychological hazards* of our time. In the church today, man wants to be recognized as an individual in his personal participation and this is as vital and needed for himself as it is needed for the survival of the church as a whole. The security that modern man searches for will be found in a living church and not in the relics of a crumbling Gothic wall.

If we are searching for a living architecture we cannot create it by transplanting forms even if they are conceived in our time. *Eclecticism* will always lead to stagnation. We can be inspired by the work of other countries and try to equal their spirit but we should never try to copy their forms.

Modern architecture was the revolt against the eclecticism of styles, the theft of hollow shells lacking the creative ideas their originals possessed.

Architecture is and always will be an expression of its time, function and construction. Surely form is the result of this expression and the result only. You cannot separate it from the factors which created it without killing its life. However, are we not today in the middle of a new eclecticism again – the eclecticism of modern architecture?

It doesn't seem wrong to re-use modern forms if they are solutions to the same problem. Gothic has re-used structural elements like the pointed arch over and over again. However, new meaning was cast in each application producing uncountable variations. It would be

Architecture tried to step beyond its boundaries

foolish to throw away form elements just because they have been explored but each time we re-use a form we must re-examine the principles behind it.

But can we transplant a church from South America to Canada, for example? If form is really the expression of the principles of life, a Canadian and South American church must look different because the factors resulting in the design are utterly different – the climate, the economy and the temperament of its people. However, there will be a certain similarity between both forms because both have been created by the 20th century with the technical knowledge and philosophy of the same time. In Gothic – we differentiate between Spanish, English or French Gothic and still find the combining elements which make them all Gothic – this style shows us how urgently each style needs its native factors to stay powerful. The few attempts to transplant Gothic into Italy have left historical curiousities which lost the impact that northern Gothic undoubtedly creates. All but one factor was present when Gothic was brought to the south. The Gothic structure was a conveyance to express the mysticism of the northern soul. This misty emotion was alien to the southern soul which needed clarity in a land of sun and shade.

Are we moving toward a *new architecture* or is what we call modern architecture already history and are we fertile again to create a new style? The first building which bore the mark of modern architecture appeared shortly after the beginning of the twentieth century. This means that this style has existed for a period of nearly fifty years. This is a long time not only for our short-living present, but also for the history of the western world. Very seldom have their styles lived longer than half a century in the creative period of the style (German Baroque or certain periods of Gothic, for example).

However, the length of time alone cannot be the important factor in bringing about a new period. To distinguish a new period has always been a task of history. The present is too much involved in its manifold reflections to see its true picture.

Style periods have also seldom had a closed time limit. There have been periods where two styles lived side by side as early Gothic and late Romanesque in Germany. Lately, many art critics have been busy telling architects it is about time to create a new style. Mumford has said "the audience is waiting for the performance to begin . . . they (the architects) are still only going through the mechanical motions . . . (without producing a real style) . . ." (Function and Expression in Architecture). But before we predict a new style to come we should see if the principles for it are ready. However exciting it may be to write about art revolutions, we should be careful not to confuse a lot of noise with the real thing. If we examine the principles of modern architecture we will find that we still base our theory on the same maxims as was done in the '20's. Our forms might change radically from the ones used at this time. However, our basic approach is still the same. It is only that the expression has matured and can be lenient in accepting a wider range of variations than it could at its beginning. Any new style will avoid connections with previous styles as it is afraid the old forms might suppress the newborn idea.

There have been definitely changes in modern architecture; but I feel they are not basic enough to sever the connections and call them a new style (Kennedy: The House and Its Design). Nobody who has climbed Ronchamp will deny that here an architect has cast a vision into reality. Le Corbusier has developed a church structure which seems to be the beginning of a new philosophy – a new world of forms we are about to enter. We cannot any more rectify this approach with the classic values of modern architecture. It is a new organic shape whose laws we do not know although we feel their existence. It seems as if here the form has left its functional and structural means and created a space which does not need the obvious excuse.

Real art will be strongest when it has left the basic material requirements farthest away, like a sculpture of Lembruck compared to the form of the latest model Ford.

In conclusion, we find that out of the principles, forms will take shape – sometimes forms will be found before we discover their principles – but our age will not find *one* definite form which will represent the contemporary church. If our time ever creates a style it cannot be measured in the restricted way the Greek order could be, but this style will express the manifold ways of our life.

The nave became vertical, reaching for a union between God and Man

Elements whose purpose seem to be solely to enhance the expression, suddenly reveal their structural necessity

The Continuing Existence of the Profession of Architecture

BY WALTER S. JOHNSON

THE PROFESSION HAS BEEN IN DANGER in some parts of Canada of being submerged under a tide of ruthless competition, and one can reasonably ask whether Legislatures have understood the scientific and cultural issues involved. Is there good reason why architecture should not be firmly made a closed profession with exclusive rights in the designing and functional planning of *buildings* — houses, schools, apartments, hotels, hospitals, commercial and office buildings, armouries, factories, theatres, halls, stadia, air-port buildings, and so on?

If the profession is established by statute, with power to maintain the dignity, honour, and necessary skills of its members, by examinations and strict disciplines and the tests of years of university training, why dilute and in a large degree negative and discourage the legitimate rights, aims, and ideals of its qualified members, by allowing others, not qualified as architects are peculiarly qualified, to invade the field and minimize the prestige of the profession?

For by organizing and establishing a given profession, whether that of medicine, the law, dentistry, engineering, or architecture, the Legislature surely must intend to set it apart, to give it exclusive rights, to enhance its skills, to protect the public by excluding the infringer, the unqualified, the not fully and specifically trained. Else why establish the profession but leave it open to others who will not or cannot achieve full membership by meeting its standards and requirements for admission? Why in such case demand, as a condition of admission, a long and costly four or five year training in a university course of architecture, with all its emphasis on architecture as both an art and a science, on functional planning for buildings of diverse kinds, and, in the early years of the course before specialization begins, on the basic subjects common to both engineers and architects? At the point where the basic training ends and specialization begins, the two professions diverge — the engineer goes on to develop his specialty as a civil, electrical, chemical, mining, or other engineer, and the architect to his specialty as the designer and functional planner of buildings.

It is important to see two facts clearly — that the architect, retained to design and plan a building and supervise its construction, is not only the master of the work, in all its parts, but is responsible for the entire plan, including the suitability and the co-ordination of the parts that may have been prepared by consultants whom he or the owner retains; and second, that he must and does design using the materials common and customary in the building trade, whether steel, concrete, glass, wood, or otherwise.

It is a frequent claim of engineers that the layout of structural steel, of reinforced concrete, the planning of a foundation, is, *per se*, engineering work; and hence that, for example, a building designed with structural steel is to be regarded as an engineering work, so that the engineer has at least a concurrent right with the architect to design the whole building. I heard a civil engineer testify under oath to that effect in a case where he was sued for infringement by the Quebec Association of Architects, and even that a design for wooden instead of steel beams was engineering work. The courts disagreed with him. Steel, concrete, wood, are simply building materials, common to both professions. The architect is trained to use them as part of his professional service. He is trained also to design heating, electrical, ventilation, lighting, and water layouts and services. He may not be a specialist in any of them, or he may be too busy to undertake the detailed study, and it is his privilege, and in some cases may be his duty, to consult particular specialists — but as toward the owner he remains liable for designs and advice so obtained and adopted by him as part of his over-all plan. It is common knowledge that an architect or engineer, arranging, for example, for structural steel or a heating system, will leave to the steel supplier or the heating contractor the detailed layout — but subject to his checking and approval.

It is another and favourite claim of the engineer that a so-called "industrial building" — that is, one in which an industry is to be carried on — is an engineering work, because in it engineering work will be carried on and it must be adapted to that work, or because it is to be regarded as a "housing" for the mechanical or engineering plant, machines, or work therein located or carried on. Yet such a so-called "housing" is definitely a building, and there are architects who specialize in the functional design of industrial buildings of every kind. One wonders what would have been the over-all result, architecturally, functionally, and artistically, if the Parliament Buildings, the Chateau Laurier, the Chateau Frontenac, the Sun Life building, the great hotels of Winnipeg, Vancouver or Victoria — all designed by architects, aided no doubt by many engineer consultants — had been left entirely to the care of function-

ally untrained engineers, for design and execution.

One has heard engineers say — oh, we'll design the building and, perhaps, call in an architect to do a little decoration or suggest some colour schemes. I like to think, on the contrary, that such a jibe at the architect's instinct for some and indeed all possible aesthetic values in any building he designs, is the reflection of a complex of inferiority and actually a menace to the look of our cities if the engineer is to supplant the architect. I know of many architects who, even as students, and during later years of practice, visited and visit and revisit the cathedrals and chateaux, the halls and palaces, the classical and modern great and inspired buildings of Europe, as touchstones of taste and perennial fitness and beauty, and inevitably reflect their impressions here for the ultimate grace of our Canadian civilization.

But here I would return for a moment to my earlier line of thought. The natural field of the architect, the designing of buildings, is being invaded by construction firms, often operating as such and such an "Engineering Company or Corporation", or the like. Some of them are of Canadian origin; an increasing number are subsidiaries of English or American firms, generally well financed. They offer to design, build, and supervise buildings, particularly the larger industrial buildings. They may be headed by an engineer or have one or more engineers in their employ, and thus justify their corporate name. In reality, they are simply general contractors, eager to secure not only the profits of a builder but the fees of a designer. They may even employ an architect or architects. Their contract is with the owner, a "package contract". They are at once designer, builder, and sole judge of performance. No architect, representing the owner, is present to call for tenders, to advise as to the relative competency or the final choice among bidders, to supervise performance of the contract and protect the owner's present and permanent interest. What choice has the owner, once committed, as to the qualifications of the employee engineers or architects, what right to question performance? None.

What skill has the firm or its employees in functional design? He does not know — he must take it for granted and abide by the result. He is bound and "packaged". He has by-passed the architect who might have protected him, in making a contract, in preparing plans, in supervising the work, in selecting general and subcontractors, in being his constant watchman and adviser. In Quebec, the Association would discipline a member who sold himself as a mere employee of such a firm, by giving him a choice between abandoning such employ or being struck off the register, or who for a nominal fee perfunctorily signed plans really prepared by the firm, by suspending him from practice for a term or even by removing him from the register.

In Quebec, we take the clear-cut position that, by statute, the architect, like the lawyer or the doctor, was given an exclusive field upon which no infringement by unqualified persons will be allowed. It would, in our thinking, be illogical, and confusing, and against public interest and leading to lack of public confidence, to establish a profession, for reasons of public safety and public order, and then allow it piecemeal to be penetrated and violated and its rights and skills as designers of buildings rendered equivocal. In his work as the designer of buildings, the architect is not to be put in competition with contractors and with engineers operating as contractors.

In Quebec there are about five hundred architects, members of the Association, trained and qualified in their sole specialty as architects, at great expense, their own and that of the Schools of Architecture. There are some thousands of engineers — civil, mining, chemical, electrical, metallurgical, mechanical, management, show-case, sales, and many others — who as members of the Corporation of Professional Engineers sign themselves "P.Eng.", and are free to move, as easily as water round an angle, from one activity to another, even to head some "Engineering Corporation Limited", though, as our law now stands, not entitled to design buildings and make "package contracts" for *design,* construction, and supervision. Our architects, on the contrary, can not operate as limited companies, with limited liability, but must personally pass examinations, practise individually or in partnership, sign their plans, and as individuals carry their professional responsibility to the end — a responsibility that makes for integrity, efficiency, and the specialization that our expanding economy increasingly demands.

Why not, everywhere in Canada, protect the profession of architecture as the professions of medicine, law, accountancy, dentistry, optometrists, and others, are protected? The engineering profession is given exclusive fields. Why give it concurrent rights in the field of architecture, especially on the flimsy, indeed the ridiculous ground, that the part designing of a building in steel, cement, or wood, is "engineering" work? Let the engineer concentrate on greater efficiency in his mining, chemistry, metallurgy and atom bombs, in designing his dams and power developments, bridges, railways, wharves, harbour developments, highways, canals, seaways, electronics, radar, shipbuilding, and use all the cement and steel he needs. The architect is not competing with or sharing his field. And to survive, the engineer needs no concurrent rights in the field of architecture, if we note the widely publicized cry for even more thousands of his extraordinarily diverse professional specialists. The architect in his hundreds, should, in the public interest and as a matter of public order, be fully protected in what seems and has always been his special and natural field.

VIEWPOINT

Where a competition has been decided upon, for an important public building, are you in favour of its being provincial, national or international?

Assuming that the competition under discussion has definitely been decided upon and there is no opportunity for me to talk the officials concerned into commissioning me immediately for the job, nine times out of ten I would probably be in favor of its being international.

If you concede that a competition within a profession between professional men is the proper course (and I have never heard of brain surgeons answering in twenty-five words or less why they should be selected to perform an operation), then there is no sensible reason for territorial limitations to be set. If a competition is justified to obtain the best of many possible architects then there is no justification for erecting a barrier to keep out the best. If the competition is merely a local political football it is up to the politicians to decide whether or not any American imports can play.

Finally I would summarize my thoughts on the subject as follows. If the competition is in the United States it should be an international competition in order to obtain the best the world has to offer. If the competition is in Ontario or Quebec, it should be national in order to obtain the best Canada has to offer and at the same time protect us from foreign genius. If the competition is in Alberta, then by all means it should be provincial because after all, it's our province and there is no reason why the work should go to outsiders. It is only reasonable . . .

Jack Dunning Annett, Edmonton

The decision to hold an architectural competition for an important public building having been made, there is no need to discuss this aspect of the situation. As to whether such competitions should be international, I believe that they should not be international for Canadian buildings. This may seem like self-interest for Canadian architects, but it is a fact that Canadian architects are not only competent, but are closer to the problems presented by the design of Canadian public buildings.

Entries from foreign countries often present solutions which are more abstract in relation to the problems of site, climatic conditions, etc. Probably this is the reason why some international competitions are divided into sections, with separate awards going to Canadian and foreign entries.

As to whether competitions should be provincial or national, I believe this depends upon the relationship of the building to the political hierarchy in which it will exist, but with national rather than provincial scope preferred wherever possible. For example, the recent competition for Vancouver's Civic Auditorium could very well have been restricted to architects from Vancouver or British Columbia, but the sponsors made it a national competition, which was won by Montreal architects.

The recent competition for a Police Administration Building for the City of Ottawa, which is being built with City of Ottawa funds, could doubtless have been restricted to architects from Ottawa or from the Province of Ontario, but it was made a national competition. This was also the case in the competition for Ottawa's City Hall, although this competition can be said to be more national in scope because of Ottawa being the Capital City of Canada. It is felt that many sponsors of architectural competitions see a greater advantage to themselves in gaining more architectural solutions whenever competitions are national in scope rather than provincial, and this is doubtless why it is done so often.

C. J. G. Carroll, Ottawa

Competitions, if they are to be successful, do not depend on geographical scope but on the programming, and particularly the jury. Why have an international competition with a jury that is provincial in its architectural viewpoint?

Whether the competition is handled on a provincial, national or international level depends largely, I think, on the size and budget of the proposed structure. This is purely a physical problem in programming and each competition must be individually considered.

John A. Di Castri, Victoria

Past history indicates that a winning architect may find that neither his design nor his services have actually been selected by a competition. It is evident that an architectural competition should be short and simple so that a capable architect can show his ability to solve the problem in question and then get on with the actual commission. Such a competition for a public building should certainly be national and if we feel that foreign competition is an ominous threat to our native ability then it is time for us to face that challenge.

William Greer, Toronto

The difficulties of the selection of experienced, competent and open minded advisors and judges and the complexities of modern buildings render the selection of architects by competition hazardous. The simpler the edifice, the greater is the chance of success. The more complicated the building the greater is the hazard in my opinion. As climate and local customs play such a large part in architectural design, I would say that the wider the field from which contestants are drawn the greater would be the hazard.

F. H. Marani, Toronto

Canadian architectural competitions on public buildings should be arranged to comply with areas relative to the level of government administration.

Competitions for municipal buildings may be limited to the municipal area only if the area is densely populated and employs a reasonable number and selection of architects. This may well apply to cities as large as Toronto or Montreal. Any other municipal level of competition should invite the architects in the provincial area.

The provincial level of building design competition should certainly involve the architects of the province only. To do justice to any design project the architect prefers to view the site, its surroundings and become as familiar as possible with the design project's requirements. Such information is difficult to submit to competitors nationally or internationally.

Dominion public building design competitions should be limited to the country involved. In this way, we can assist Canadian culture in the development of Canadian architecture. To encourage international competitions does not assist the development of a natural character in architecture.

S. M. Roscoe, Hamilton

If we, as Canadians, are going to develop a distinctive architectural character for our buildings as well as for other art forms, should we not endeavour to have our important public buildings designed by the best Canadian architects? For this reason, among others, I am in favour of a competition for such a building being limited to Canadian architects. No one doubts that an international competition will produce a building of excellent design and functionalism, but it would also suggest that Canadians had reservations about their own professionals.

We, as architects, might eventually suffer from a cultural inferiority complex. Surely then, if our Government sponsors a competition for a public building and restricts the entrants to Canadian architects, there is as much likelihood of the best in Canadian work coming to the fore, as would be stimulated by outside contestants. It would be pointless to restrict the entrants to the province in which the building is to be erected,

as this would seriously curtain the numbers of persons who could compete. Also, why emphasize our provincial barriers on the cultural level as well as on so many others. Canadian architecture should transcend physical and language barriers, and tend to draw a people together.

Building conditions in Canada are not unique compared to other civilized parts of the world, and while there is nothing that intelligent research cannot overcome, it is surely more satisfactory to have a design carried through from the initial concept to the finished details by someone who knows and understands the climate and material problems which must be dealt with. Canadian materials should be incorporated into such a building to the greatest extent possible, and this again is not as easy for an outsider to accomplish. Obviously, there will be instances where an imported product is necessary for a special effect.

It will be assumed that one of the chief purposes of an international competition is to attract several internationally known architects to submit designs in the expectation one of them will win the contest. This also poses a problem for the judging committee. If it is an international competition, one assumes there will have to be a higher proportion of internationally known judges than would be required for a purely Canadian competition. Again, presuming we have a truly representative list of international competitors, what would be the reaction of the general public to an important public Canadian building designed by an architect from Communist China after being awarded the prize of the commission by judges from India, Amsterdam and South America?

The writer remembers an occasion during the war when he was looking about a library in Oxford. In the course of the visit a conversation was commenced with an American soldier. The American volunteered that he was a graduate of a certain Mid-West university, and asked "Are there any Universities in Canada?" The writer mentioned that there were some fairly well known institutions and asked "have you ever heard of the McGill Medical School". Oh yes! was the reply – "That's in Maine, isn't it?"

To conclude, we had best concentrate on good national competitions before aspiring to the international level.

C. F. T. Rounthwaite, Toronto

News from the Institute

CALENDAR OF EVENTS

Annual Meetings of the Provincial Associations:

Alberta, Macdonald Hotel, Edmonton, January 18th and 19th, 1957.

Quebec, Alpine Inn, Ste. Marguerite, February 1st to 3rd, 1957.

Ontario, Royal York Hotel, Toronto, February 15th and 16th, 1957.

Nova Scotia, Lord Nelson Hotel, Halifax, May 17th, 1957.

Annual Meeting of the National Housebuilders Association, Mount Royal Hotel, Montreal, P.Q., January 9th to 11th, 1957.

Annual Meeting of the Canadian Construction Association, Royal York Hotel, Toronto, Ont., January 20th to 30th, 1957.

"Session '57", Alberta Association of Architects, Banff School of Fine Arts, Banff, Alta., January 20th to 26th.

1957 Convention of the Royal Australian Institute of Architects, Melbourne, April 1st to 6th.

1957 Annual Convention of the American Institute of Architects, 100th Anniversary, Washington, D.C., May 14th to 17th.

1957 Annual Assembly of the Royal Architectural Institute of Canada, 50th Anniversary, Chateau Laurier Hotel, Ottawa, Ont., May 29th to June 1st.

Annual Meeting of the Engineering Institute of Canada, Banff Springs Hotel, Banff, Alta., June 12th to 14th, 1957.

RAIC COUNCIL AND EXECUTIVE COMMITTEES

Members who were at the Annual Assembly in Banff will recall an animated discussion on proposals to reduce the number of Provincial Representatives on the Council, and to make changes in the composition of the Executive Committee. The purpose of both proposals was to prompt a more widespread participation in Institute affairs, hitherto difficult due to the twin obstacles of geography and expense.

After a very thorough debate at Banff, it was realized that much study was necessary before action could result, but it was also agreed that early decision was desirable. Accordingly, it was resolved that a Special Committee representative of all Canada should meet in Toronto in November to study these proposals, and to report to the Executive Committee and a Special Meeting of Council. It is gratifying to note that when the Special Committee met in Toronto on November 22nd, every Province was directly represented, with the exception of Newfoundland, whose interest was delegated to the representative from Nova Scotia.

After day long discussion, which involved such considerations as the financial position of the Institute, the necessary representation of Executive Committee members required on the Standing Committees and a host of other practical details, it was agreed that it was inadvisable to reduce the size of the Executive Committee. Similar decision was reached on the suggestion to reduce the number of Council members representative of the Provinces, as no benefit would accrue either to the Institute or the component Associations.

On the problem of ways and means to provide representation on the Executive Committee for the Eastern and Western component Associations, it was decided to recommend the addition of three members of Council to the Executive Committee, representing the Atlantic Provinces, the Prairie Provinces and British Columbia.

A full report of the deliberations was made to a Special Council Meeting on the 23rd November. The Council agreed to accept the recommendations in principle, and instructed the necessary amendments to the By-laws be drafted for submission to ballot of Council at the next Annual Assembly. The component Associations are to receive complete information on the proposals. When legally effective, the changes to the By-laws will provide for an informed representation on the Executive Committee on a Canada wide basis.

Acknowledgement is made with gratitude of the hospitality extended to both the Special Committee and the Executive Committee by the President and Secretary of the Ontario Association of Architects.

MANITOBA

After a lapse of several months, the newsletter from the mid-continent is being resumed. Locally, we are convinced that these newsletters are worthwhile channels for the exchange of interesting bits of information.

During the past few weeks, Winnipeg's architectural horizon has been highlighted by the completion and opening of several buildings, the most recent of which are the Builders' Exchange (Waisman and Ross) and the Children's Hospital (Moody and Moore). The Red River skyline is rapidly changing with the growth of many housing developments and several proposed shopping centres as well as the addition of such massive structures as the Post Office and the additions to the Deer Lodge Hospital and the General Hospital.

The School of Architecture at the University has had a very busy fall term with a twenty percent increase in enrolment. We have been most fortunate in the addition of Lional T. Chadwick (Manitoba '34) to the staff. On November 4, the annual Open House, arranged by the Students' Architectural Society, was held in the lounges of the Student Union Building. During the afternoon over 1900 people visited the display of student work. Featured in the display was a 24-foot diameter geodesic dome designed and built of 4′ x 10′ sheets of plywood by the third year architects under the guidance of Professors Borgford and Donahue. Also featured at the display was the sixth edition of the annual publication, *Perspective*, which achieved new distinction in format through the elimination of all advertising. This issue, featuring the work of Richard Neutra, was made possible through the patronage of fourteen architects from coast to coast.

Through the continued enthusiastic cooperation of the Manitoba Association of Architects, the School is planning a series of visiting lecturers early in the new year. Meantime, mid-year examinations loom as the necessary evils of the festive season!

J. A. Russell, Winnipeg

ONTARIO

Some time has passed since the Architect, who built the animal dens for less than a whole loaf of bread (See Oct. 1956 issue RAIC *Journal*), found himself with an empty bread box. Much wiser now, and on the advice of the Adder, he moved far afield to other meadows where there was a large forest full of Foxes, Raccoons and other animals crying for new dens. This time he insisted upon his whole loaf of bread for his full services, and no matter if a Black Fox wished a den exactly the same as he had designed for the Red Fox, he refused to accept even one slice less.

He and the Adder worked very hard and each den received close supervision and much personal attention. Soon the animals learned to respect his judgment and were glad to pay a full loaf of bread for the services he rendered. The news spread about the excellence of his work, about how he protected the interests of his animal clients, about how his own personal interest and experience helped as well the Beavers, who were the Builders. Both learned of his fairness in deciding the costs for an extra room when Mr and Mrs Raccoon had a Blessed Event during the construction of their den.

His fame grew and soon animals from other Forests, far and near, heard about him and he was flying to every part of the country to design dens for animals he hardly knew, and from whom he received his whole loaf of bread. Inevitably, the Architect had more than he could do, and his personal interest disappeared as judgment and decisions were left to his new, and much less experienced, assistants. They would visit many dens, in many forests, on each flying visit which became less and less frequent. They began to rely more and more upon the Beavers, forgetting that they, too, were dependent upon inexperienced youth.

One day Mr Raccoon telephoned Mr Architect and asked "Aren't you going to put Birch Bark around my den to keep the rain out?" "Yes, of course," replied the Architect, "we always do that!" "But Mr Beaver says my den is finished, and no Birch Bark was used because he was not told to do so."

So sadly ends this tale, Mr Raccoon told Mr Fox who told Mr Wolf, and soon Mr Architect once more had an empty bread box.

Another moral: A full loaf deserves a full loaf.

H. D. L. Morgan, Toronto

OBITUARY

Robert Alexander Montgomery, MRAIC, died on September 30th, 1956. His death has been keenly felt, not only by his close friends and by his colleagues in the profession, but by all in the building industry who knew him; for he possessed qualities which earned him the respect and the friendship of those in the associated professions and trades as well as of fellow architects. An unwavering integrity, a keenly analytical and critical approach to every problem, and an uncompromising standard of performance, whether his own or of others collaborating in the project in hand, together with a discerning architectural taste and a technical knowledge such as few architects achieve in a much longer lifetime, were the professional qualities which made his untimely death the more bitterly frustrating.

He was an avid reader with a catholic taste in literature and possibly a weakness for the humorists. He enjoyed a ready sense of humour himself and his friends will not forget his flashing and often scathing wit, nor even his deft and always acceptable puns. He was a gifted writer, though seldom in print, and his personal letters will have been collected by many of his correspondents. He rarely fell victim of the occupational disease of drawing his own Christmas cards, but would instead wait to receive the efforts of his friends and then return cleverly drawn parodies calculated to cure the do-it-yourself artist for life. His favourite hobby was woodworking. A meticulous craftsman in this, as in his profession, he produced articles of furniture which would shame many professional cabinetmakers, and he perhaps found in this pastime an outlet for his impatience with the shoddy craftsmanship so frequently encountered today in the building trades.

Montgomery was born in Beebe, Quebec on December 26th, 1907. He was educated at Philipsburg, Quebec, where his father practised medicine, and at Bishops' College School, Lennoxville. During summer holidays from school he worked in the marble quarries at Philipsburg where he undoubtedly gained some of his early knowledge of and respect for the qualities of natural materials. In 1926, he entered McGill's School of Architecture, graduating in 1931 at the head of his class with the McLennan Travelling Scholarship. With this he spent a year studying in Europe and returned to Canada to find himself in the midst of the architectural and general depression. For a few years he worked at what few jobs offered in those lean times in the office of Ernest Barott, where he had spent his summers while at college. When the war came his technical and administrative ability took him to the Allied War Supply Board and he was in charge of much of its work in the Montreal region. After the war the firm of Barott, Marshall, Montgomery and Merrett was formed, and until his death he was a most active partner, contributing greatly to the firm's projects as designer, job administrator, and perhaps chiefly, with his profound knowledge of materials and the science of building, as specification writer.

At the time of his death he had been for years one of the McGill School of Architecture Advisory Committee; he often judged the design problems and sometimes lectured in Professional Practice. He was also the Montreal alternate RAIC representative to the Technical Council of the Canadian Standards Association.

Quiet and reserved, Robert Montgomery was perhaps not personally well known to the profession at large, but it is safe to say that through his work and by his sound judgement he greatly influenced and helped those who were associated with him, and contributed much to the standards and interests of the profession.

Campbell Merrett

AWARDS

Miss Blanche Lemco, MRAIC, has won an award at the International Federation of Housing and Town Planning Congress in Vienna. Miss Lemco won praise for a film "It Can Be Done" showing how man can build his own house in any country of the world. A McGill graduate, she is Professor of City Planning at the University of Pennsylvania, teaching architectural design.

Central Mortgage and Housing Corporation has awarded four fellowships for post-graduate study in community planning for the academic year 1956-57. The fellowships, which are in

amounts of $1,200 each, have been awarded to A. W. Williams, B.A., of Vancouver; Peter J. Stokes, B.Arch., of Toronto; Peter J. Martin, of Moncton; and Alfred Davey, B.Arch., of Toronto.

THE ROYAL CANADIAN ACADEMY

The Royal Canadian Academy has elected the following new Associates: Ghitta Caisserman, Alan C. Collier, Rody Kenny Courtice, Paraskeva Clark, Eric Arthur, Dora de Pedery Hunt. Hugh L. Allward has been re-elected President, with other officers as follows: Vice-President, Charles F. Comfort; Honorary-Treasurer, J. Roxburgh Smith; Secretary-Treasurer, Fred Finley; Council Members, Franklin Arbuckle, R. York Wilson, Robert W. Pilot, A. J. Casson, Cleeve Horne, A. S. Mathers, W. L. Somerville, Oscar de Lall, Frederick B. Taylor, Stanley Cosgrove. Academicians-elect are Albert Cloutier and Goodridge Roberts.

CORRESPONDENCE

Goteborg, Sweden
September 19, 1956

Dear Professor Arthur,

I am writing you a letter from Sweden to try and explain why I will be late for university once more. I hope you will make allowances for my missing sketch camp and for being late for the opening of university this fall.

As you are probably aware, sir, I have very little money, and have only managed to put myself through college with the aid of bursaries. The result is that, when I decided to take you up on your idea of travelling, I had to do it in exactly the same manner as the student who went to Australia with limited cash. I remember your lecture to us in first year when you told us of this chap leaving Canada with only a few dollars in his pocket and working his way to Australia. Last year, I set out from the university with ten dollars in my pockets. I spent three weeks walking the docks in Montreal and constantly being told "NO" in various tones of voice. However, at long last, I got a job as a galley boy on a small Norwegian freighter and thus over to Germany. I landed in Germany with one dollar and seventy-five cents, and set out for Sweden on one of the local trains. Needless to say, my finances were exhausted by the train trip to Hamburg. Then came the problem of food. Eventually, while looking for a place to sleep in one of the parks in Hamburg I came across a wishing well into which many well wishing Germans had thrown their D marks. I removed my shoes and socks in a nearby bush and proceeded to re-imburse myself. From there on, I hitch-hiked to Goteborg, Sweden, where I had the good fortune to make friends quite rapidly. Unfortunately, there was no job to be had in Goteborg so, upon reading of an American architect wanted in Stockholm, I set off with three sandwiches and a can of caviar which my friends had given me. In Stockholm, I was forced to walk four miles out to the architect's office because of lack of finances to use the tunelbana, and, when the architect asked where he could phone me up in a couple of days, I was unable to give a precise answer. My place of lodging was Stockholm Central Station, or, to be more correct, the bench behind the hotel Centralen. Finally, however, I managed to get the job and for the next four months I slept in my sleeping bag on the floor of the office. At the end of the summer, I returned to Goteborg to look for a job on a boat, and, after three weeks of walking the docks, my friends were able to get me a job on S A L's "Kungsholm" as a first-class dishwasher. So back to university.

This year I set out again, only this time I was relatively wealthy for I had twenty-five dollars in my pocket. Again I walked the docks in Montreal, and, finally, after two and a half weeks, got a job as a deck boy on a small 2000 ton freighter. I landed in Rotterdam and hitch-hiked up to Sweden to visit my friends. Then back down to Italy where I lived on twenty cents a day until I was able to find a job working for architect Vigano for eight dollars a week. This allowed me two small meals a day with the exception of Saturday and Sunday when I was able only to buy one meal a day. Of course, no money left to send a letter home, until, finally, my friends in Sweden sent me some international postage coupons. It was a hard experience, but one for which I am glad. Now it has come time to challenge the ocean once again in an effort to reach the other side. I tried to get on the September 19th sailing of the "Kungsholm" so that I could be in New York in time to hitch-hike up to Dorset for sketch camp. The attempt failed.

As you probably know, the sister ship of the "Kungsholm", the "Stockholm", collided with the "Andrea Doria" this summer with the result that the "Stockholm" has been in dry dock in New York. Now they are hoping to sail the "Stockholm" on October the 2nd, so that every available space on the "Kungsholm" was being used to take seamen over for the sailing of the "Stockholm". Thus it was impossible for me to go over with her on this voyage. Now I must wait here until either the 25th or the 28th when I hope to get a job on a freighter. This means that once again I will be late for sketch camp.

I do hope that I have not over done what you suggested in your lecture in first year, for, to be quite frank with you, I don't think that one can travel too much or know too much of how others live.

I do not do my travelling so much to "see" as to stop and live with other people; to adopt their ways of life and to work in their vernacular. It is so very different from reading a book and trying to adopt the beneficial things from other ways of life to our own way of life. I would much rather live the lives of these other people in their own way and become aware of why they have the way of living they have. For this reason, I am inclined to think that Kidder Smith in both of his books *Sweden Builds* and *Italy Builds* looked at the conditions with too much of an American eye, and too little understanding for what the people themselves were used to and really felt was right. For example, I believe that in his book *Italy Builds* he complains of the fact that in some housing for the poor there are no elevators, and thus mother has to climb six stories with the groceries. I will agree that from my point of view it is a long way to go, but the poorer class of Italians don't seem to mind, and the groceries are usually raised to the flat by a little basket lowered over the balcony on a long rope.

I must admit that this has led to a great deal of confusion on my part. Yet the satisfaction of awareness of these things rather than of the published word is what makes me search for what is true for our country. I am still young and immature in all of these things but searching, and, for that reason, I would never give up these last two summers of travelling.

As you see sir, in my wanderings and searchings, I have managed to err twice in that I will be late for the opening of university once again. I do hope that because of my financial insecurity I will be able to receive some consideration for my lateness.

Fred Thompson

This very personal letter is published with Mr Thompson's permission. I publish it partly for its interest, and, partly, as a public penance for my own sins. My guilt is apparent, but I am glad to report that Mr Thompson is alive and in, apparently, robust health.
E.R.A.

CONTRIBUTORS TO THIS ISSUE

Peter Dickinson served during the late war as a Lieutenant in the Grenadier Guards. He is an Honours Graduate of the Architectural Association, London, where he was awarded the ICI Scholarship and Henry Florence Studentship. From 1948 to 1950 he had a general practice in London. In 1950 he joined the firm of Page & Steele, and was made partner in charge of design in 1953.

Walter S. Johnson, Q.C., Docteur en droit *honoris causa* de l'Université de Montreal, (Hon.) MRAIC. Mr Johnson, a member of the Quebec Bar for over fifty years, has been Counsel of the Quebec Association of Architects for over twenty-three years. He has written extensively on legal subjects relating to architecture, engineering, and construction, and is known across Canada for his contribution to architecture especially. At Banff, in June last, the Institute conferred upon him an Honorary Membership, in appreciation of his devotion to the interests of the profession.

Eberhard H. Zeidler was born January 11th, 1926, in Braunsdorf, Germany. He received his professional education in Germany where he studied at the Bauhaus in Weimar and the Technical University in Karlsruhe. After graduation, he worked in association with Professor Eiermann and Professor Linder on projects in Switzerland, Germany and Holland. In 1951, he came to Canada and settled in Peterborough, Ontario, with the firm of Blackwell and Craig. In 1953, he became a partner. For a time,

Mr Zeidler was an instructor in design at the School of Architecture, University of Toronto. He is an enthusiastic sailor and skiier.

FUTURE ISSUES

January, 1957	General
February	Branch Banks
March	Students Issue* (Ecole des Beaux-Arts)
April	Schools*
May	Housing* (to be defined shortly)
June	Industrial
July	RAIC Golden Jubilee*
August	Farm Buildings
September	General
October	Vancouver and Victoria*
November	General
December	Recreation Centres

N.B. Only those months marked with an asterick represent special issues. The others are general issues with an emphasis on the subject mentioned.

BOOK REVIEW

APPLIED STRUCTURAL DESIGN OF BUILDINGS by Thomas H. McKaig. Published by F. W. Dodge Corporation, New York. 444 pages. Price $12.50.

This book is designed for use by the practising architects, structural engineers, and draftsmen. It is primarily a handbook rather than a textbook, containing many charts, tables and graphs compiled from AISC, ACI, Portland Cement Association, National Lumber Manufacturers' Association, Timber Engineering Company, and several other publications, providing short cut methods and ready solution to structural problems met in everyday designs. Various examples of designs in structural steel, reinforced concrete, and timber, are worked out in detail.

Generally, the book confines itself to simple structures except for one chapter dealing with complex structures such as trusses, bunkers, etc., and a portion of another chapter devoted to stress analysis of continuous beams, and rigid frames, by the moment distribution system. Chapter on office practice provides valuable information such as cost data, structural check lists, etc., not ordinarily available.

Rigorous development or proof of theory is not given in the book, but rather devotes its pages to the practical solution of structural problems encountered in the office by the architect, design engineer, or draftsman.

J. S. Sugiyama

THE WEST BLOCK AND ITS FUTURE

The proposal to take down the West Block in order to rebuild it with a hundred or more additional rooms is opposed because the loss of such an important and handsome building in a country where history has left few monuments is deplorable. On the other hand, it seems the existence of the West Block will be precarious until all members of Parliament in need of accommodation appropriate to their duties are properly housed.

So, in the spirit of meeting both the historic need to retain one of the two remaining original Canadian parliamentary buildings, and the immediate practical need of finding space for the requirements of the present time, could not the West Block be simply extended, as was done in such a masterly way by Alexander Mackenzie in the seventies?

LANGEVIN COTE, THE GAZETTE

If another wing were made in the general direction of the Central Block, the new accommodation would be convenient to the House of Commons, the old building would be preserved and one would hope, improved in interest as it could be expected that a new wing would be as splendidly designed as the most talented men in the field could make it.

The old parliamentary buildings were built with vision and courage as physical evidence of a united Canada. In a sense their massiveness and wonder confirmed the deed of union and indicated the folly of the idea of dissolution. There can be no doubt that the buildings were to be monuments to which men could be rallied and they continue to have that purpose. The central one has been destroyed by fire and rebuilt as a great memorial to Canada's First World War effort. It is infused with the spirit of the twenties, and with the exception of the Library hardly contains a stone of the building it replaced. But the West and East Blocks remain from the mid-nineteenth century the original parliamentary buildings in Ottawa. Their accommodation may now be inadequate and shabby, but their poetic significance is no less and in the years to come their power to relate the spirit of their builders will be unparalleled.

The manner in which this problem is resolved is one of great significance and deserves the careful consideration of the people of Canada.

(signed) E. R. Arthur, *Corresponding Member for Canada of the International Committee on Monuments, Artistic and Historic Sites and Archaeological Excavations under UNESCO.*

John Bland, *Director of the School of Architecture, McGill University.*

Fred Lasserre, *Director of the School of Architecture, University of British Columbia.*

H. H. Madill, *Director of the School of Architecture, University of Toronto.*

John Russell, *Director of the School of Architecture, University of Manitoba.*

JOURNAL, RAIC INDEX

VOLUME 33, 1956

LITERARY CONTRIBUTIONS

ILLUSTRATIONS

AUTHORS AND CONTRIBUTORS

Keeping noise low at high noon!

Photo shows part of "The Coffee Shop", Robert Simpson Co., Ltd., Toronto. In this popular rendezvous of hungry and hurried office workers and shoppers, the shrill clatter of dishes is effectively subdued with Johns-Manville Transite Acoustical Panels.

Designed by Robt. Simpson Co., Ltd.

Contractor: Mollenhauer Contracting Co., Ltd.

Johns-Manville

ACOUSTICAL CEILINGS

reduce disturbing noise at low cost

CONTROLLING NOISE is nothing new to Johns-Manville engineers. They have been doing it successfully for over 40 years. In radio studios, schools, hospitals, restaurants, offices and industries, J-M Acoustical Ceilings have helped cut down unnecessary noise by as much as 42%!

Today, because the desire to eliminate noise is universally recognized, most new construction specifies Acoustical Ceilings. But even in old buildings there's no need to continue paying the penalties noise imposes. You can have a Johns-Manville Acoustical Ceiling applied right over the old ceiling. And to the immediate improvement in sound control will be added the distinction of a handsome new ceiling!

In most areas, Johns-Manville have expert staffs to make recommendations, estimates and installations. For full details, or for our free book, "Sound Control", write Canadian Johns-Manville, 565 Lakeshore Road East, Port Credit, Ontario.

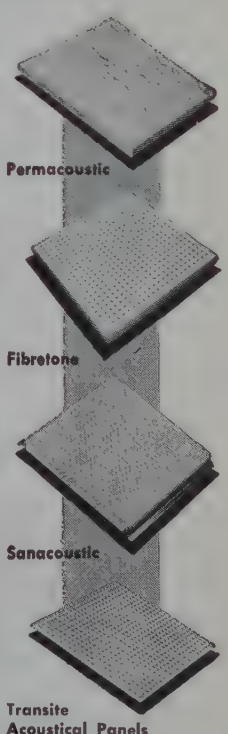
Johns-Manville A-320 JOHNS-MANVILLE JM PRODUCTS

Permacoustic Units provide a textured panel with outstanding architectural appeal. Specially suitable for executive offices, board rooms etc. Efficient, decorative and non-combustible.

Fibretone Acoustical Units are moderate in cost, yet they effectively combat unnecessary noise. This drilled fibre board brings the cost of sound control within reach of almost anyone.

Sanacoustic Units are perforated metal panels backed up with fireproof sound-absorbing elements. Units may be washed repeatedly, or painted without decreasing their acoustical efficiency.

Transite perforated asbestos-cement panels are especially resistant to fire and moisture. Transite Panels are recommended for broadcasting studios, auditoriums, laboratories.

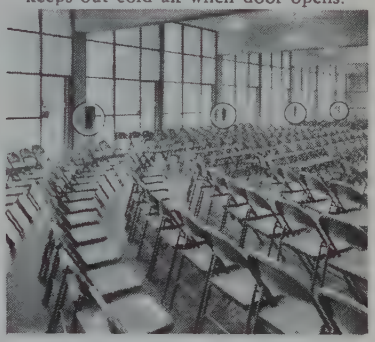


40 years of leadership in the manufacture and installation of acoustical materials.

It's easy to give large rooms and entryways that Warm welcome

Type BF cabinet units, equipped with plenum bases and partially recessed in wall, maintain comfort in the hallways of this large midwestern elementary school.

Recessed in the counter, a Type BF keeps out cold air when door opens.



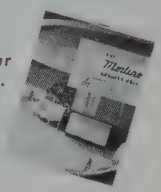
Using ducts, cabinet units heat adjacent rooms as well as auditorium.

the answer . . . *Modine* Cabinet Units

For that lasting "warm-welcome" first impression — in new buildings or remodeling jobs — there's nothing like Modine Cabinet Units for *performance*, *styling*, *versatility*. Five smartly-designed models—120 to 640 Edr—offer an unmatched variety of installation arrangements and mounting possibilities for quiet, efficient, economical heat distribution.

Some can be used for steam or hot water heating . . . others heat with hot water . . . cool with chilled water. They can be installed upright or inverted . . . fully exposed, recessed or concealed . . . on walls, floors or ceilings. All can be used with or without ducts. What's more, with inexpensive accessories, Modine Cabinet Units can be adapted to introduce, filter, heat and distribute fresh outside air for ventilation. Above all, they're economical—cost far less to install than individual unit ventilators or air conditioners.

See the Modine representative listed in your classified phone book. Or write Modine Mfg. Co., 1520 DeKoven Ave., Racine, Wis., for Bulletin 552.

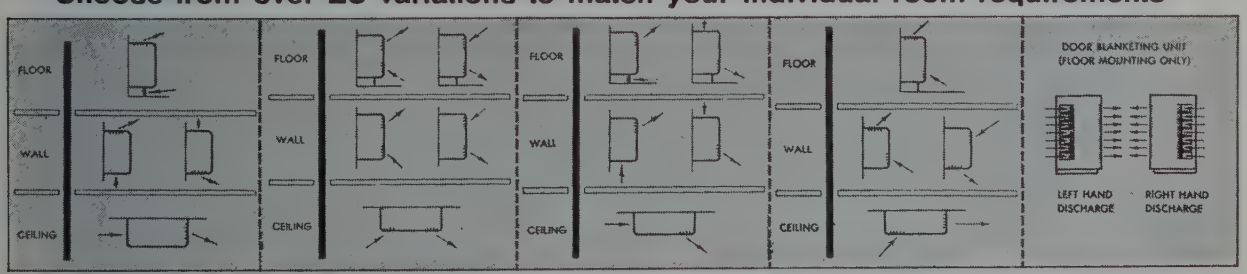


SARCO CANADA, LTD.
611 Gerrard St. East, Toronto 8, Ont.
Offices: Calgary, Winnipeg, London, Hamilton, Montreal, St. John

R. E. JOHNSTON CO., LTD.
1250 Homer Street, Vancouver; 833 Yates Street, Victoria

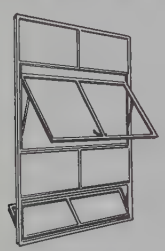
C-1315

Choose from over 20 variations to match your individual room requirements

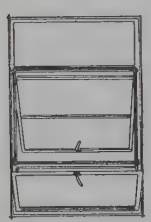


Men *Important* to Building...

prefer and specify CRITTALL METAL WINDOWS



COMMERCIAL PROJECTED WINDOWS



INTERMEDIATE PROJECTED WINDOWS

Check off your requirements on commercial windows — appearance, more daylight per square foot, perfect control of ventilation, long life and low costs — and you will find CRITTALL Steel and Aluminum Windows meet every need.

MORE DAYLIGHT: Frames are strong and rigid without being bulky, and so permit larger glass areas.

CONTROLLED FRESH AIR: Smooth-swinging vents protect against drafts, let fresh air IN while keeping wind and rain OUT.

TRIPLE SAVINGS: (1) Low First Cost, due to Volume Production. (2) Low Installation Cost, you select from Standardized Modular Sizes. (3) Low Maintenance Costs Steel *lasts!*

Investigate CRITTALL Metal Windows *before* you lay out your window plans. Our specialist-engineers are at your disposal, or we will mail you our catalogue for your files. Write for it TODAY.

COMBINATION WINDOWS

8

HEAD OFFICE AND FACTORY

685 WARDEN AVE.

TORONTO 13, ONTARIO

CANADIAN

CRITTALL

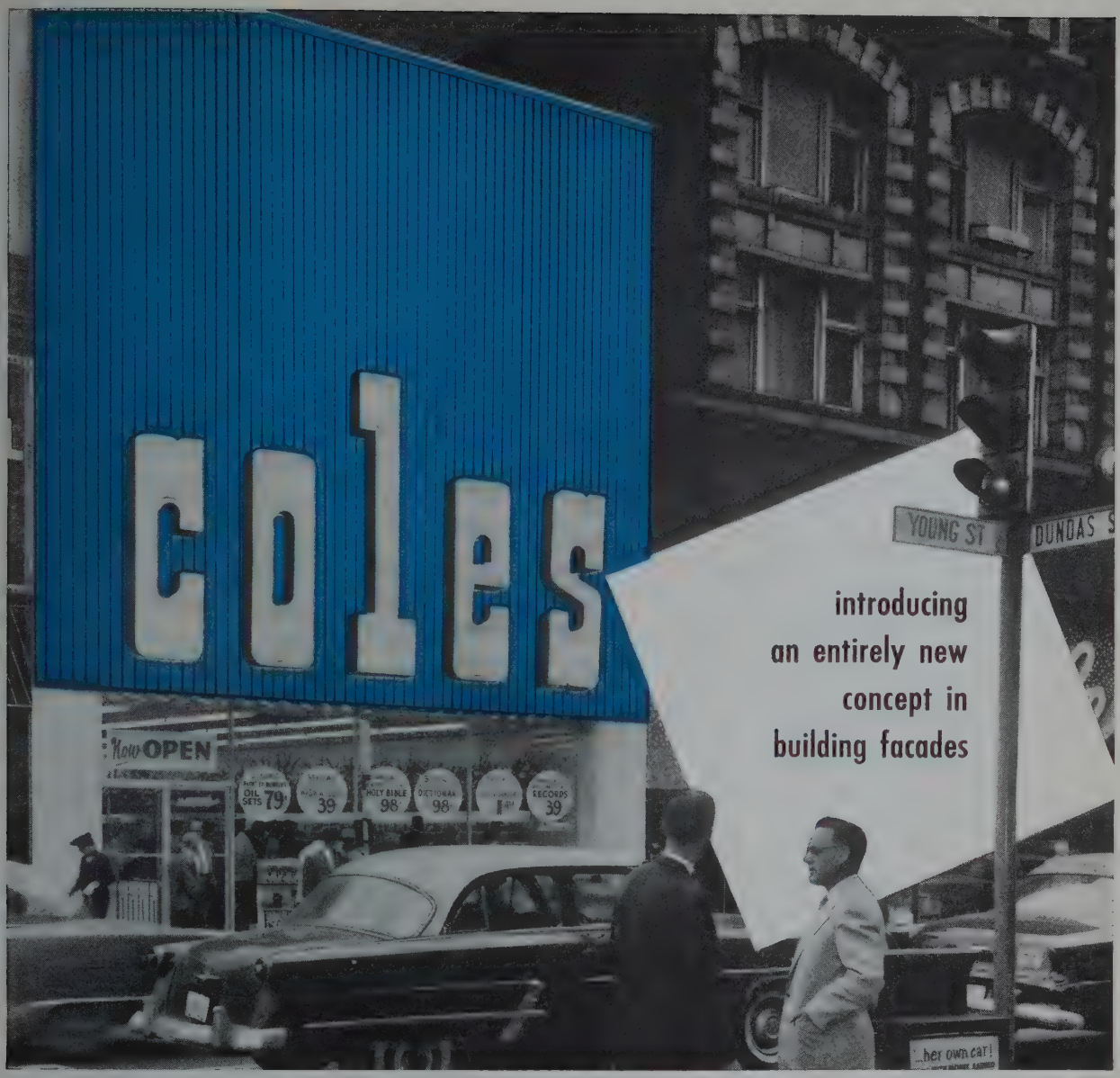
METAL WINDOW LTD.

BRANCH OFFICES

2180 BELGRAVE AVE.
MONTREAL, P.Q.

439 RAILWAY ST.
VANCOUVER, B.C.

Manufacturers and Suppliers of Windows in Steel and Aluminum for all purposes



To economically achieve smart modern appearance, the designer of this imposing facade turned to new SATINCOAT. Made on Dofasco's continuous galvanizing line, SATINCOAT is a zinc-coated steel that takes and holds fine paint finishes without costly pre-treatment. Low in cost, decorative, easy to handle, SATINCOAT is adaptable to many applications in modern construction. No lateral seams to mar beauty with SATINCOAT — available in any running length!

Talk to your regular Distributor, or write Dofasco direct for details.

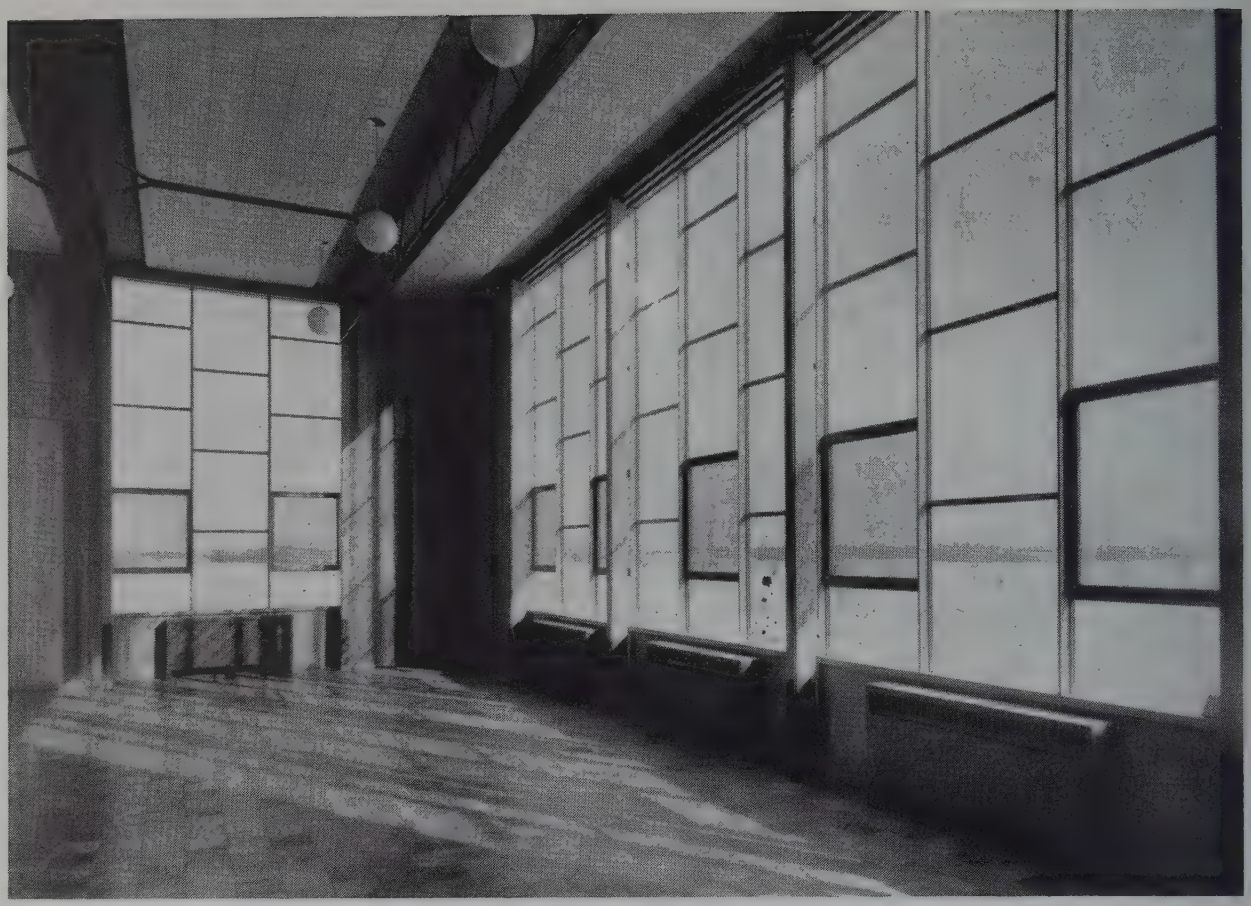
DOMINION FOUNDRIES AND STEEL, LIMITED
Hamilton, Canada

Dofasco

satincoat

A NEW GALVANIZED STEEL THAT PAINTS WITHOUT PRE-TREATMENT


ALUMINUM RAILINGS
BUILT BY YOUR LOCAL FABRICATOR
POST SP-11 FOR PLANK TREADS
DETAILS PAGE 9 CATALOGUE M-56
Blumcraft®
OF PITTSBURGH
460 MELWOOD ST. PITTSBURGH 13, PENNA.

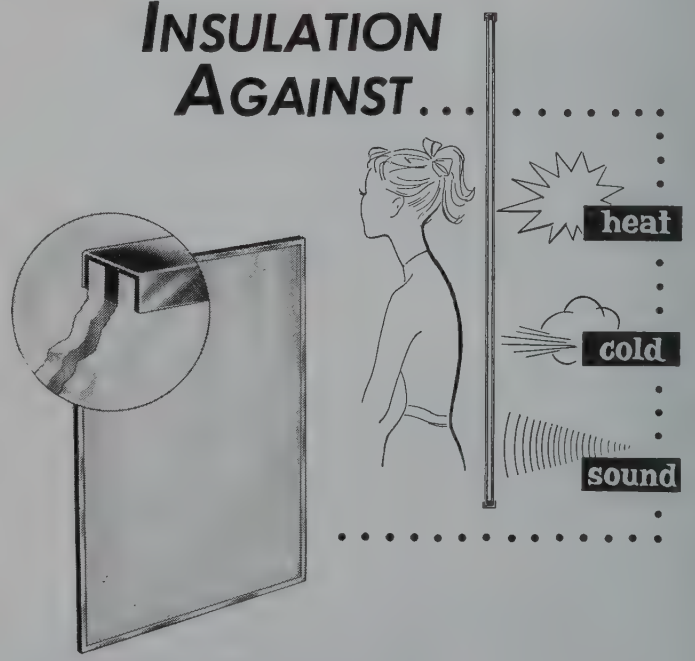


One of the rooms at Wingham District High School insulated with hilsulate.
Architects: Kyles and Kyles, Hamilton, Ont.
Photograph by Panda Photography, Toronto, Ont.

hilsulate double glass clear panels

hilsulate double glazing is a sound investment bringing concrete returns in reduced fuel consumption. hilsulate keeps rooms warm in Winter and cool in Summer, giving increased living space and better health for all — the comfort of it really has to be experienced to be fully appreciated.

When designing schools, offices, hotels, hospitals, apartment buildings, industrial plants, etc., Architects today specify hilsulate double glass clear panels for insulation against COLD, HEAT and SOUND.



hills
Structures of Canada
limited

For full particulars write for illustrated brochure to:

321 Davenport Road
Toronto
Telephone WA. 4-8749

"Fabrilite" Catalina pattern in Dresden blue.

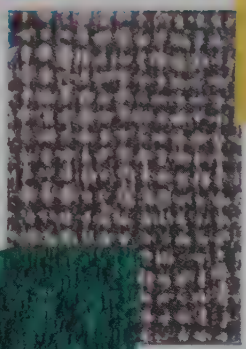
"Fabrilite" Brittany pattern in rose.

clean, bright walls and furniture without redecoration costs with

Fabrilite

vinyl plastic coated fabric

"Fabrilite" Roman Grain pattern in yellow.



"Fabrilite" Windsor Tweed pattern in ice pink.

"Fabrilite" Barony pattern in green.

FABRILITE* cuts maintenance costs on walls and furniture. It is a modern vinyl plastic coated fabric that resists scuffing and washes easily . . . ideal for high-traffic areas. *"Fabrilite" can be easily cleaned with just a damp cloth* . . . and its colours and texture effects have a long and lovely life, because "Fabrilite" stubbornly resists nicks, scratches and scuffing. Canadian-made "Fabrilite" is the finest-quality fabric of its type and economically priced. Make a sound investment — specify "Fabrilite".

a durable covering for walls and furniture in modern colours and patterns!

*MADE BY **CANADIAN INDUSTRIES LIMITED** NEW TORONTO, ONT. C-I-L SERVING CANADIANS THROUGH CHEMISTRY

Bell Telephone Co. of Canada, Toronto
Mathers & Haldenby, Architects

leading architects specify Clerk windows

CLERK Windows are designed and made in Canada to give satisfactory, long-lasting service and to operate efficiently under Canadian climatic conditions. At the architect's request, Clerk develops windows to suit special building conditions or contemporary architectural design.

CLERK originated and has the longest experience in the production of Reversible windows for easy, safe and economical washing from inside. Clerk counterbalanced sashes eliminate weights and springs, operate easily and ventilate rooms at ceiling level.

CLERK produces quality windows in aluminum, wood and aluminum-covered wood. They are available single or double glazed. Exclusive wool pile weatherstripping stops the weather, yet permits smooth, silent, friction-free operation at all temperatures. *Clerk Windows Limited, 1499 Bishop Street, Montreal 25, Canada.*

In Eastern Canada:
R. R. Power Limited, 56 Argyle Street, Halifax, N.S.

Caisse Populaire, St. Hyacinthe
David & David, Architects

Hôtel Dieu, Pavillon de Bullion, Montreal
Gascon & Parant, Architects

Bedford School, Montreal
Fetherstonhaugh, Durnford, Bolton & Chadwick, Architects

CLERK
WINDOWS

TWO GREAT NAMES...

THE ROYAL CONNAUGHT

A SHERATON HOTEL
Hamilton, Ontario

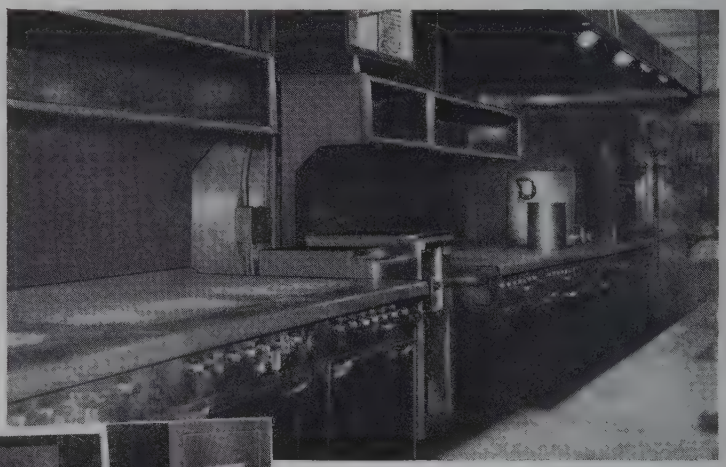
The 350 room Royal Connaught is famed as the "banquet center" of Hamilton, Canada's great steel city. As many as 10,000 delicious meals a week are prepared on Garland-Blodgett ranges and broilers.

GARLAND

The Greatest Name in Commercial Cooking

Independent surveys prove again and again that Garland Commercial Cooking Equipment has more installations in leading hotels, restaurants, clubs, schools, and institutions than any other make! The reason is simply that men who know, prefer Garland quality, durability, dependability, and economy.

Chef de Cuisine, James Gilheany, of the Royal Connaught says: "My staff and I can speak only in the highest praise of the performance of our Garland Ranges and Broilers."



Equipment installed and gas supplied by United Gas Fuel Company, Hamilton, Ontario

The battery formation illustrated includes: Spectro-Heat Hot Top; Unitherm Fry Top; Deep Fat Fryer; and Side Fired Broiler. Units available in standard black-Japan or Stainless Steel finishes.

92 YEARS OF LEADERSHIP

GARLAND

Heavy Duty Ranges • Restaurant Ranges • Broiler-Roasters • Deep Fat Fryers
Broiler-Griddles • Roasting Ovens • Griddles • Counter Griddles • Dinette Ranges

GARLAND-BLODGETT LTD.

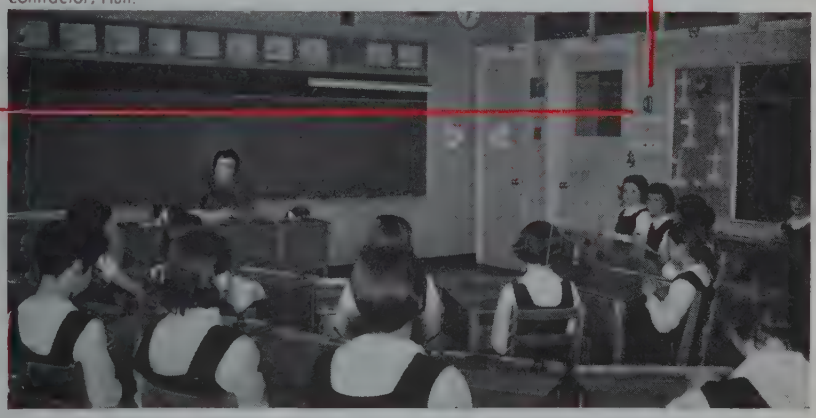
1272 CASTLEFIELD AVENUE, TORONTO

Garland-Blodgett experts are ready to help you with your commercial cooking problems. Why not contact us now?

Money IS BEING SAVED HERE

Lac des Fils School, Wrightville, Quebec; Rene Richard, architect, Hull, Que.; Guy Belanger, mechanical engineer. Ottawa; W. D. St. Cyr Ltee., heating contractor, Hull; E. St. Louis & Fils, ventilating contractor, Hull.

with -JOHNSON Individual Room CONTROL



"Is *individual room* temperature control worth the cost"? That's a question that's heard at many a school board meeting.

True, it's the *only* way to be sure of getting ideal temperatures in each and every classroom. It's true, too, that students learn easier, faster when temperature levels are matched to their activities.

But, in these days of increased construction costs, can a thermostat in every room be justified?

Planners of the impressive new Lac des Fils School revealed the answer when they provided for a system of Johnson *Individual Room* Control. This was the school board's first experience with individual room control, but it's not likely to be the last. For, during the first year of operation, *heating costs for this 40-classroom school were only about half as much as would ordinarily be expected!*

With a Johnson Thermostat on the wall of each classroom, there is no overheating, no needless fuel waste. Heat output is never any greater than the actual need. Yet there is comfort unlimited.

In the large auditorium-gymnasium, the central fan ventilation system and radiant heating panels are controlled with equal precision. More fuel is saved!

For added comfort and additional fuel savings, Johnson Master-Submaster Thermostats compensate for changes in outdoor temperatures, automatically keeping the heating systems in balance with outdoor conditions.

Any building, small or large, can enjoy the unmatched comfort and fuel saving features of Johnson *Individual Room* Control. A Johnson engineer will gladly explain how they can be applied to your problems. A talk involves no obligation and, as in the case of Lac des Fils School, it could easily lead to savings far greater than you would expect from other methods of control. Johnson Temperature Regulating Co. of Canada, Ltd., Toronto 16, Ontario. Direct Branch Offices in Principal Cities across Canada.

JOHNSON CONTROL

SINCE 1885

PLANNING • MANUFACTURING • INSTALLING

For Lifetime Wear

. . . and colorful beauty, too!

Amtico
PERMALIFE
VINYL FLOORING

All-vinyl . . . with beautiful colors going through-and-through, Amtico Vinyl Flooring is the most complete line and offers unlimited design possibilities . . . takes hardest wear for years.

America's most luxurious flooring, Amtico Rubber Flooring is the quality leader that gives your customers lifetime economy, rich beauty, cushioned comfort and fire-resistance.

Amtico
RUBBER FLOORING

See Architectural Building Catalogue

AMTICO, Dept. CA-12, Sherbrooke, Quebec

Gentlemen:

Please send me Free complete set of Samples and detailed information about Amtico Floorings.

Name.....

Firm.....

Address.....

City..... Province.....

(Please attach coupon to your business card or letterhead)

Also makers of Amtico Plastex Rubber Flooring

World's Largest Producer of Rubber and Vinyl Floorings

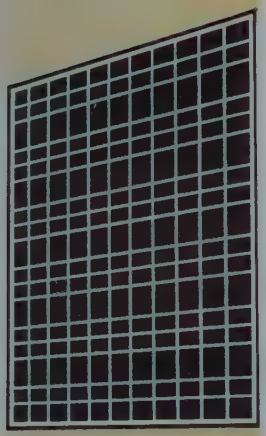
AMERICAN BILTRITE
RUBBER CO. (CANADA) LTD.
SHERBROOKE, QUEBEC

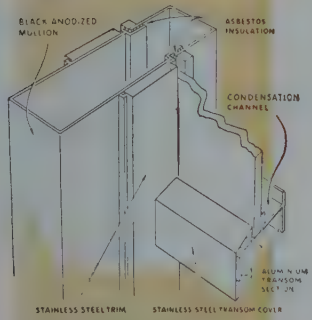
Wallspan

by

WILLIAMS & WILLIAMS

{ special profiles to architects designs





Joins of Mullions and Transoms. *These are joined by a spigot connected to the mullions. The transoms are specially prepared to fit these spigots and allowances made for expansion movements. A mastic seal is provided at all joints.*

OFFICE BUILDING, 146 BLOOR ST. WEST, TORONTO
ARCHITECT — GORDON ADAMSON & ASSOCIATES.

There is a place for Wallspan in every building, new or old, large or small. It can be used in the over-all curtain walling technique, or to special areas and profiles as designed and specified by the architect. Wallspan is contemporary, giving a building smart, neat lines plus the extras of ECONOMY — MORE RENTABLE FLOOR SPACE — SPEED OF ERECTION.

✳ *NEW CATALOGUE NOW AVAILABLE ON REQUEST*

Get ***ALL*** *the facts on* ***WALLSPAN*** *from*

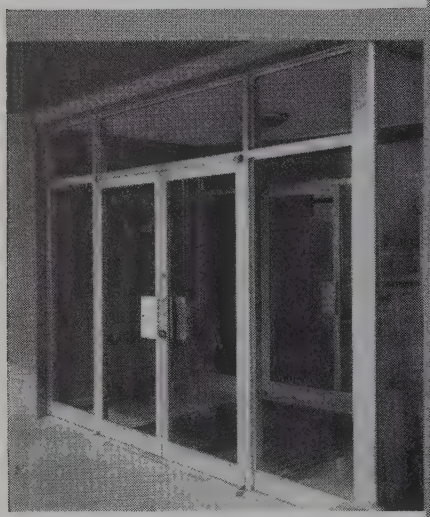
WILLIAMS & WILLIAMS

(EASTERN) LIMITED TRENTON, ONTARIO, P. O. BOX 411, PHONE 6511

(WESTERN) LIMITED 950 S. W. MARINE DRIVE, VANCOUVER 14, B. C. PHONE KE 8181

SALES OFFICES: HALIFAX MONTREAL TRENTON TORONTO HAMILTON WINNIPEG EDMONTON CALGARY VANCOUVER

IN GLASS — CPI Twindow insulating windows are installed throughout the hospital, providing ample, cheerful lighting plus safe, comfortable indoor conditions all year 'round. Aluminum frames add to hospital's ultra-modern smartness.



IN METAL — This impressive CPI Plate Glass and Pittco Metal entranceway demonstrates a modern application of beauty of design and utility. CPI entranceways can be designed to compliment and enhance any architectural plan.

Glass and metal set the trend in architecture for modern medicine

Here in the new Nora Francis Henderson Hospital, Hamilton, you'll find outstanding examples of the use of Canadian Pittsburgh materials in modern construction: Twindow—the insulating window, Pennvernon Window Glass, Plate Glass, Pittco Metal doors and entranceways.

If you are contemplating new construction or renovating, find out how Canadian Pittsburgh Glass and Metal makes possible completely new and different functional and decorative conceptions in architecture and building. Write: Architectural Glass Department, Canadian Pittsburgh Industries Limited, 10 Price Street, Toronto.

GLASS · PAINT · PITTCO METAL

CANADIAN CPI PITTSBURGH

INDUSTRIES LIMITED

GP-26

Nora Frances Henderson Hospital, Hamilton, Ont.
ARCHITECT: J. D. Kyles
GENERAL CONTRACTORS:
Tope Construction Co. Ltd.

Roxatone used in Park Plaza addition

Yolles and Rotenberg, General Contractors, stated that, "Roxatone has been specified for all public corridors in the new Park Plaza addition. This choice was made on the basis of experience with this product at 111 Richmond St. W. in Toronto".

Earlier use of Roxatone in the Yolles and Rotenberg building on Richmond St., Toronto, proved that it substantially reduces maintenance costs.

Roxatone is a hard-wearing plastic coating that's scratch and smear resistant. It gives an expensive-looking multi-coloured effect, like skilful spatter painting. In years of use, Roxatone has outlasted other finishes by 3 to 1. One coat of Roxatone covers any surface—plywood, plaster, metal, concrete or asbestos board. Conceals minor flaws like cracks, nail holes and surface roughness.

ROXATONE *plastic decorator finish*

Write today for complete details on this versatile and economical new decorator finish.

Roxalin of Canada, Limited,
New Toronto, Ontario.

☐ Please send me a free Roxatone folder and colour chart.
☐ Please have a representative call, to show me how Roxatone can fill my particular decorating needs.

Name.....
(please print)

Firm.....

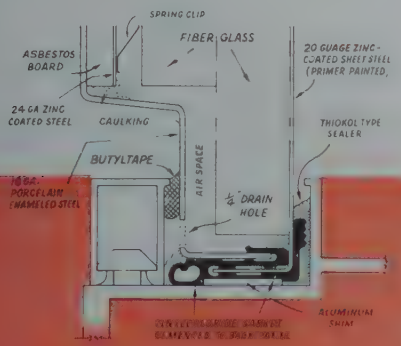
Address.....

.....

For the finest complement to Curtain Walling specify . . .

GRAHAM BELL

ARCHITECTURAL PORCELAIN



The B.C. Electric Building in Vancouver is an outstanding example of Curtain Wall construction. The panels are manufactured by Graham Bell Limited to our own high standards. The face of the panel is architectural porcelain enamel, fused to 18 gauge vitreous enamel steel with a core consisting of ¼" thick, long fibre asbestos board. To this is bonded a 24 gauge zinc coated steel equalizing sheet with thermo setting adhesive under high pressure. This plus a semi rigid fibre glass bat compressed between a 20 gauge zinc coated back pan with a rust inhibiting prime coat forms the panel. The vinyl chloride gasket is cemented to the back panel and forms a substantial thermal and moisture barrier and assists in centering the panel in the grid.

Our research and development department will be pleased to assist and advise architects, engineers and contractors in every phase of the use, design and application of the many varieties of architectural porcelain panels.

GRAHAM BELL LIMITED
streetsville ontario

MANUFACTURERS OF PORCELAIN ENAMEL ON STEEL
Associated with the Bettinger Corp. Waltham, Mass.

The B.C. Electric Bldg., Vancouver
Architects: Thomson, Berwick and Pratt
Contractors: John Laing & Son (Canada) Ltd.

The new **CRANE** *"Sunnyledge"* sink with integral drainboard, and flat rim for counter-top installation

Your clients will certainly sing the praises of this light-weight porcelain on steel sink. Easy installation saves time and makes for greater profits. Prevention of seepage (safeguarding against deterioration) is of particular importance in apartment building and rental housing jobs. Special *titanium* content of Crane porcelain enamel makes surface *stain-proof*.

As illustrated, Crane catalogue No. 5-127, (No. 5-128, with R.H. drainboard), size 42" x 21", with "Receptol" strainer and "Hudee" stainless steel sink frame. Available in White, Sky Blue, Shell Pink, French Grey, Citrus Yellow, Pale Jade, Sun Tan.

For full details consult your plumbing fixtures "Blue Book" or write to the manufacturers:

In Eastern Canada

CRANE STEELWARE LIMITED

QUEBEC, P.Q.

In Western Canada

ALLIANCEWARE LTD.

VANCOUVER, B.C.

DAYLIGHT RESEARCH HOUSE

home of Dr. R. A. Boyd, Ann Arbor, Michigan
Architect: Harris Armstrong, F.A.I.A., Kirkwood, Missouri
Decorator: Marian Stutzman Quinlan, A.I.D., Chicago, Illinois
Photographs by Hedrich-Blessing, Chicago, Illinois

Design idea:

the magic of daylight everywhere

Now YOU CAN PLAN for daylight in any room!

The Daylight Research House shows how Owens-Illinois Toplite Roof Panels can be used to flood interior rooms with balanced, well distributed daylight. Attractive panels of O-I Glass Block combine with the Toplite to keep exterior rooms comfortably bright, with daylight well diffused throughout.

To control daylight, both O-I products are made of glass, with a prism structure especially designed to accept cool North light and reject the rays of the hot summer sun. For descriptive literature, write to Owens-Illinois Inter-America Corporation, Dept. JR-12, Box 1035, Toledo 1, Ohio.

Canadian Representatives—Consolidated Glass Industries, Ltd., and Branches; Pilkington Glass, Ltd., Branches across Canada; Consolidated Plate Glass (Western) Ltd., Winnipeg.

GLASS BLOCK AND TOPLITE ROOF PANELS
TWO (I) PRODUCTS

OWENS-ILLINOIS
INTER-AMERICA CORPORATION
GENERAL OFFICES • TOLEDO 1, OHIO

NOW...the Sargent Integralock in

STAINLESS STEEL!

The answer to owners' demands for permanence and beauty

Sargent has done it! Leads the field again! Gives you the already famous Integralock . . . *in a shining armor of stainless steel!*

This gives you the lock you need to blend with modern stainless steel trim. The stainless steel knobs and escutcheons do not require polishing—a real operating economy. The hard, durable alloy resists dents and mars for a lifetime of lasting beauty. Available in polished or satin surface at standard Integralock prices.

All that . . . *and* all the famous Sargent Integralock features, too! The exclusive, patented Sentry Bolt, positioned *horizontally* for more security. *Plus* locking set stops . . . key-in-knob convenience.

Call your Sargent representative! Be one of the first to see the Integralock . . . in *stainless steel.* Or write to us direct for complete information. Lift Lock Hardware Industries Limited, Peterborough, Ontario.

SARGENT

Winning wide acceptance in
Canadian Construction . . .

ALUMINUM IN CURTAIN WALLS

Smart Appearance and Exceptional ECONOMY have been decisive factors in establishing the trend to curtain wall construction in Canada.

Over 50 major Canadian buildings have already been built using this type of wall. Many more are on the way.

Curtain walls go up fast and easily; require no scaffolding (grid and panels are usually installed from inside); have few joints; are practically maintenance-free.

With aluminum curtain walls dead load is less and the thinner walls can provide extra floor area.

For complete information on Alcan aluminum in Curtain Wall construction, contact your Alcan Sales Office.

Mercantile Bank of Canada, Vancouver
Architects: McCarter, Nairne & Partners, Vancouver

Barclay's Bank, Toronto
Architect: Blake H. M. Tedman, Toronto

Dayton Building, Winnipeg
Architects: Green, Blankstein, Russell & Associates, Winnipeg

ALCAN

ALUMINUM COMPANY OF CANADA, LTD.

CALGARY • HALIFAX • HAMILTON • MONTREAL • OTTAWA
QUEBEC • TORONTO • VANCOUVER • WINDSOR • WINNIPEG

ALCAN

Battle River Power House uses

CEMESTO* insulating building panels

Photo shows Cemesto panel erection almost completed for Canadian Utilities Limited, Edmonton.

Consulting Engineers:
Haddin, Davis & Brown Limited

General Contractors:
Mannix Ltd.

Cemesto Erection:
McCready, Campbell Limited

Cemesto forms entire wall thickness Both exterior and interior finished wall surfaces are formed by the cement-asbestos facings of Cemesto Panels. Bonded with a bituminous adhesive to a cane fibre insulation board core, panels come in thicknesses from 11/16" to 2" and in standard modular sizes.

Resistance to weather. The facings are highly resistant to wear, weather, fire and chemical action. The adhesive which bonds core to facings is moisture and vapour resistant and the core itself is treated to prevent dry rot or termite attack.

Insulating qualities—Cemesto panels have a U value so small that additional insulation is unnecessary even in sub-zero temperatures.

Aluminum or steel accessories are available with complete structural and installation data. Specifications for Cemesto curtain walls, roof decks and partitions are included in Cemesto file 5500. Ask for your copy today.

***Cemesto** *is a registered Trade Mark of the Celotex Corporation.*

G. F. STERNE & SONS LTD.

BRANTFORD, ONTARIO

MONCTON — MONTREAL — TORONTO — REGINA — VANCOUVER

what's going on here?

A new structure will soon be erected on this site . . .
and if *you* are the owner, you will have asked your architect and contractor some searching questions *before this stage is reached;* such questions as:—

* *How fast* can the building be completed?
* Am I getting *the greatest value* for my investment?
* *Can additions or changes* in layout be made economically and quickly?
* Will it provide the *utmost* in permanence?

Steel offers the complete answer to these questions . . .
and Dominion Bridge—Canada's oldest steel fabricator—offers the most experienced steelwork service.

STRUCTURAL DIVISION
DOMINION BRIDGE
COMPANY LIMITED
Established 1882

CANADIAN INSTITUTE OF STEEL CONSTRUCTION INC. CISC

*OTHER DIVISIONS: MECHANICAL, PLATEWORK, BOILER, WAREHOUSE

Plants at: MONTREAL • OTTAWA • TORONTO • WINNIPEG • CALGARY • VANCOUVER

Assoc. Companies at: AMHERST • QUEBEC • SAULT STE. MARIE • EDMONTON

INGLIS REFRIGERATION
WITH 2,400 TONS OF WORTHINGTON CENTRIFUGALS

FOR AIR CONDITIONING THE SUN LIFE BUILDING, MONTREAL

Wiggs, Walford, Frost and Lindsay, Consulting Engineers
(MONTREAL, TORONTO, OTTAWA)

The Sun Life Assurance Company Head Office building, Montreal, will have the largest air conditioning system in Canada in the largest office building in the Commonwealth.

This is no mean task; the building has twenty-four stories, occupies a ground area of two acres, and has a cubic content of 22,000,000 cu. ft.

Three 800-ton Worthington centrifugal compressors will be installed to provide 2400 tons of refrigeration. WORTHINGTON centrifugals are ideal for such large air conditioning projects, their high efficiency, and dependability are features inherent in all WORTHINGTON centrifugals.

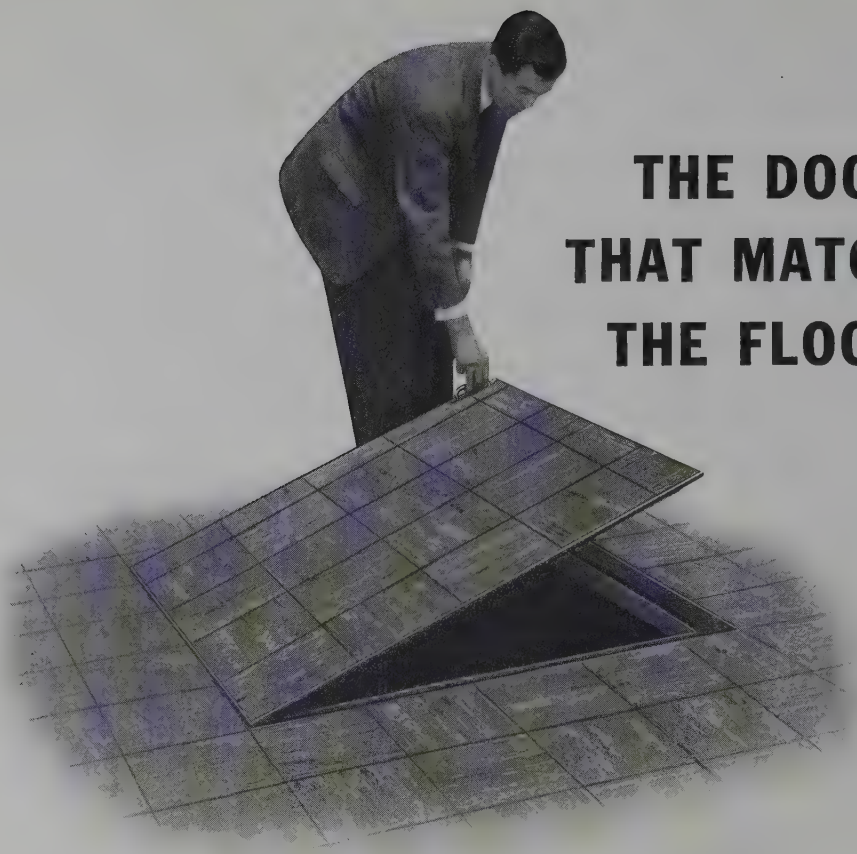
Inglis specialize in supplying complete refrigeration systems for air conditioning, food freezing, and ice rinks. Call Toronto or any of our branch offices for prompt service concerning your own refrigeration and air conditioning problems.

JOHN INGLIS CO. LIMITED
Refrigeration and Air Conditioning Division
14 STRACHAN AVENUE, TORONTO • CANADA

Inglis CANADA WORTHINGTON

3R56

DISTRICT OFFICES: HALIFAX • MONTREAL • OTTAWA • WINNIPEG • CALGARY • VANCOUVER



THE DOOR THAT MATCHES THE FLOOR!

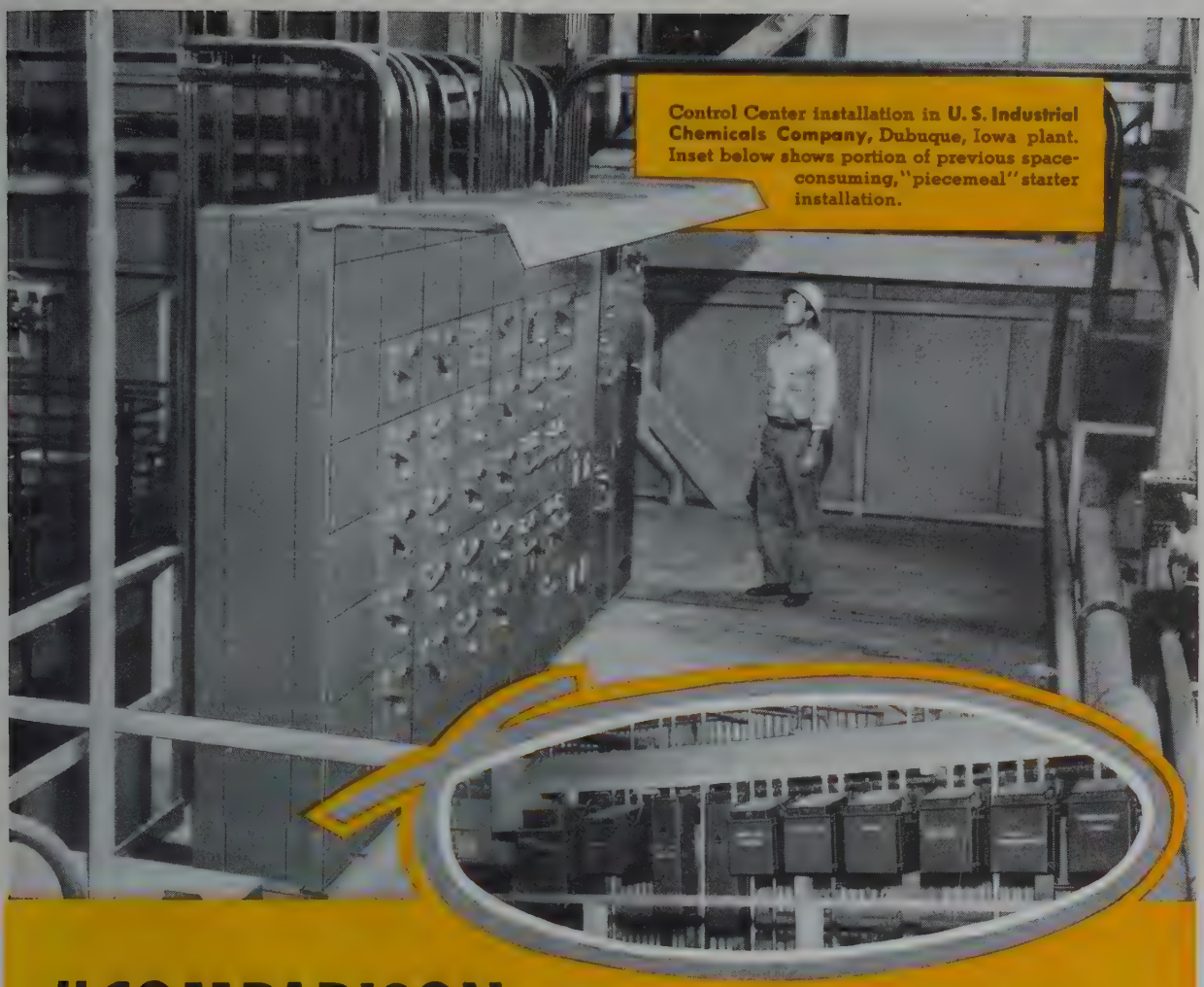
BILCO FLUSH FLOOR DOORS BLEND WITH SURROUNDING FLOOR MATERIAL

For use in rooms, corridors or any place where surrounding floor area should be matched. Extruded aluminum moulding strips around leaf and frame hold floor covering of 1/8" or 3/16" thickness. Built-in lift springs give easy one-hand operation. Seven standard sizes in single and double leaf construction. Can be made in any practical size for special needs.

Bilco®

THE BILCO CO., DEPT. 171A, NEW HAVEN, CONN., U.S.A.
Please send complete catalog of BILCO DOORS

NAME .....
FIRM .....
STREET .....
CITY ..... PROVINCE .....



Control Center installation in **U. S. Industrial Chemicals Company,** Dubuque, Iowa plant. Inset below shows portion of previous space-consuming, "piecemeal" starter installation.

"COMPARISON convinced us that a SQUARE D Control Center offered us MORE!"

These design features make Square D your logical choice, too...

INCREASED SAFETY because bus bars are fully enclosed, rigidly supported and have ample cross section. Circuits are isolated by individually enclosed plug-in units. Disconnect handle designed for maximum operator protection.

FLEXIBILITY. Individual plug-in units or complete sections are easily added, removed or exchanged. Pushbuttons, pilot lights, and selector switches are readily added to unit doors.

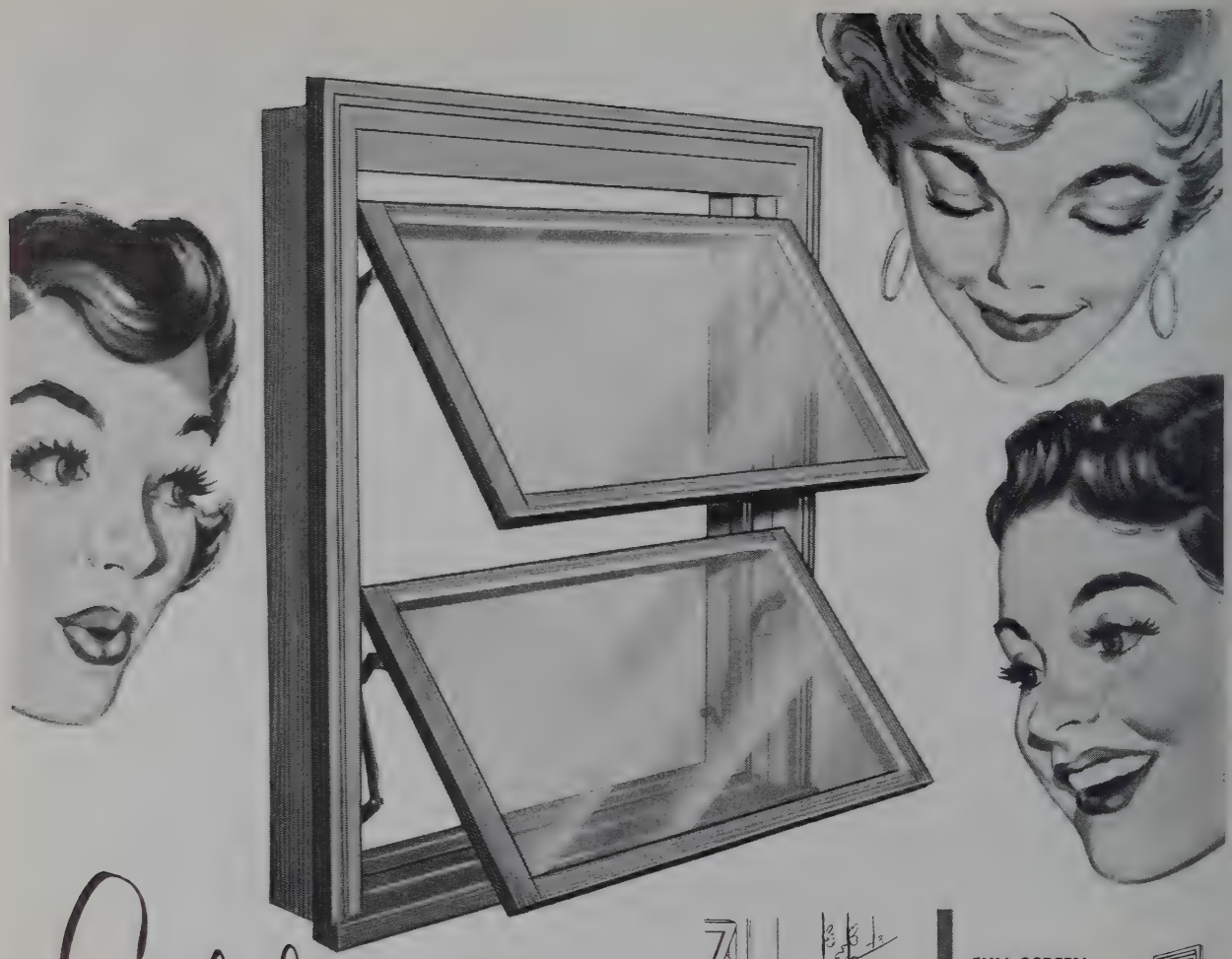
INSTALLATION ECONOMY. All wiring channels are large and accessible from front without removing units. No "wire fishing."

SPACE ECONOMY, TOO. Up to six combination starters fit in a 20" x 20" x 90" section. Plug-in unit heights designed in space-saving increments of 3 inches.

ASK YOUR ELECTRICAL DISTRIBUTOR FOR SQUARE D PRODUCTS

SQUARE D COMPANY CANADA LIMITED

Head Office and Plant: 120 Industry St., Toronto 15. Branch Sales: Quebec, Montreal, Toronto, Hamilton, London, Winnipeg, Edmonton, Vancouver



Sell the women

with easy operating

Twin-Lock WINDOWS

Women buyers are really responding to Nicholson Twin-Lock Windows. Why? Because Twin-Lock is giving them all they ever hoped for in a window; the easy operation, full ventilation, all 'round attractiveness, simplified cleaning, built-in storms and screens . . . and complete weather-tightness. Handy crank operation makes Twin-Lock the ideal window for modern kitchens. No more struggling and straining over a sink to open a window. Install nationally-advertised Twin-Locks in your new designs. Women take to them immediately. Your contractor customer's sales will be faster . . . and buyers happier.

All Nicholson windows are C.M.H.C. approved.

A.S. *Nicholson*

AND SON LIMITED, BURLINGTON, ONTARIO

Branches — Toronto - London - Kingston

EASY OPERATION

Perfectly balanced, friction-free mechanism operates window with a simple turn of a crank. No adjustments ever necessary . . . never sticks, never rattles

FULL SCREEN AND STORM PANELS

Built-in storm and screen panels all easily handled from the inside for cleaning. Just flip the clips . . no tools required

FRESH AIR WHILE IT'S RAINING

Slanting sash permits as much or as little ventilation as desired . . . even when it's raining.

EASY TO CLEAN

Cleaning can all be done from the inside Nothing to lift . . . no sash to remove . . . no gadgets to disengage. Simply open window to cleaning angle.

Nicholson

Twin-Lock

AUTOMATIC LOCKING

WOOD WINDOWS

open the door to comfort

with

. . . the key to unexcelled bathroom beauty and convenience . . . to healthful, dependable home heating comfort.

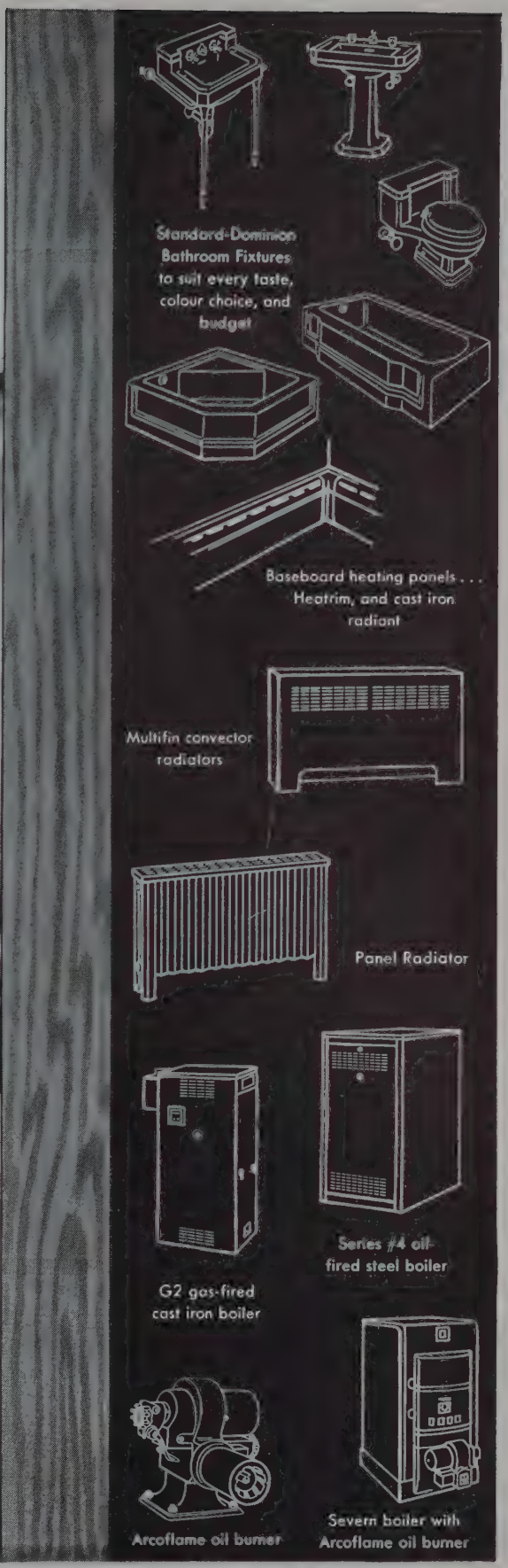
Here are quality bathrooms designed with promise of lasting charm and reliable service, in tasteful colors and functional styling. Planned heating comfort tailored to your exact specifications . . . invisible baseboard panels to free decorative restraint . . . efficient, unobtrusive radiators . . . clean, safe, dependable gas and oil-fired home heating boilers.

The finest in heating and plumbing bears the American-Standard *"Mark of Merit"* . . . you can specify its quality to complement your planned comfort . . . permanently.

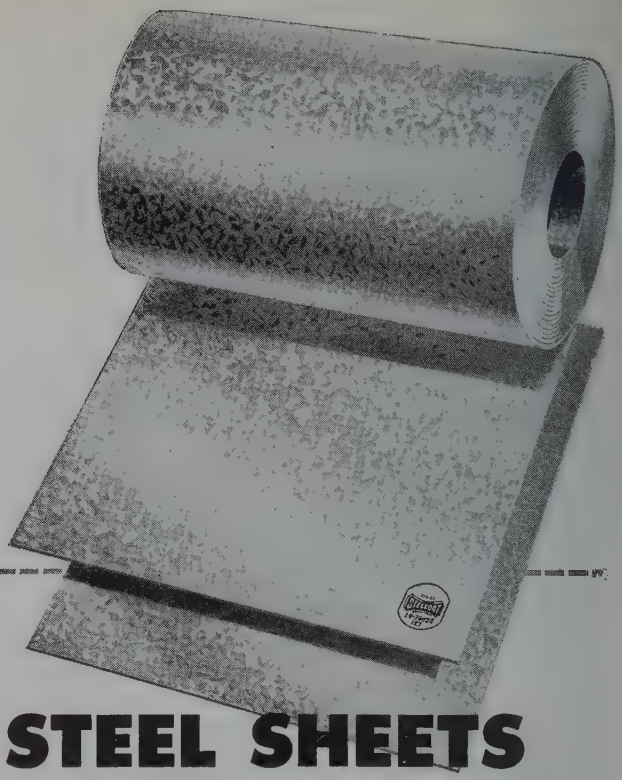
For complete information, write Dept. 11, American-Standard Products (Canada) Limited, Box 39, Station D, Toronto, Canada.

AMERICAN-STANDARD PRODUCTS
(CANADA) LIMITED

PLUMBING AND HEATING PRODUCTS



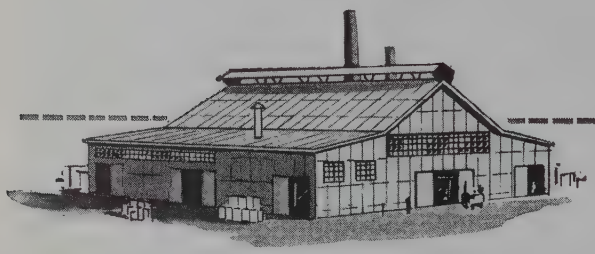
Tightest zinc coating yet produced!



STELCOAT

GALVANIZED STEEL SHEETS

offer no foothold for rust or corrosion . . . can be formed to the limits of the steel itself!



For industrial roofing and siding, steel is the most economical metal known. Compared with any competitive material, it is *stronger*, its initial cost is lower, it fabricates more easily, solders and joins better, lasts longer, and is more resistant to fire and corrosion.

In the field of sheet metal working, "STELCOAT" Galvanized Steel Sheets can take any forming that the base steel itself can take. Shown here are some examples. Note the severe draw on the muffler head; the complicated reverse draw and tight corrugations on the hog feeder; the Pittsburgh locks; the intricate folds, the stampings, and punchings. "STELCOAT" passes these tests with flying colours.

56091.B

Stelco's new Continuous Galvanizing Line, with a capacity of 100,000 tons per annum, and probably the highest man/hour production rate in the industry, has made Canada self-sufficient in output of galvanized steel sheets.

Steel of any degree of hardness or any degree of ductility can now be successfully galvanized in this Stelco unit. Extremely close control of both the weight and the adherence of the zinc by a patented process results in sheets with *the tightest zinc coating yet produced!* Even under the most severe forming, drawing, or stamping, no trace of flaking, cracking, or peeling of the zinc finish can be detected.

The trade name "STELCOAT" has been registered for these superior quality steel sheets, which are produced in widths up to 48″, in a variety of gauges, sheared to length or in coils.

See your regular steel warehouse for full information, or contact any Stelco Sales Office.

THE STEEL COMPANY OF CANADA, LIMITED

Executive Offices: STELCO *Hamilton, Montreal*

Sales Offices: Halifax, Saint John, Montreal, Ottawa, Toronto, Hamilton, London, Windsor, Winnipeg, Edmonton, Vancouver. J. C. Pratt & Co. Limited, St. John's Newfoundland.

NOW! a white seat that STAYS white and can take it

Here's dramatic evidence that Olsonite's new Shock-Proof Seats can really take it! In the torture test shown here, a gigantic 48-inch Stillson wrench was used to pull half of the Olsonite Seat more than 12 inches out of line. The result? No cracks or fractures of any kind!

In addition to the regular bowl model (#5) and elongated bowl (#10), the amazing new Olsonite Shock-Proof industrial and commercial seats are available with a concealed check hinge (#5CC and #10CC) made entirely of non-corrosive metal. A lug on the hinge posts locks against cutaway on insert in extended seat back, preventing the seat from being raised to more than 11° beyond perpendicular.

56-A-2

For Industrial and Public Installations—

SOLID OLSONITE WHITE SHOCK-PROOF SEATS THAT CAN'T FADE OR "YELLOW" IN A LIFETIME OF NORMAL USE!

The product of 52 years' experience, White Olsonite Shock-Proof Seats have a clean, sanitary appearance. Five times as strong as ordinary solid seats, they have proven their superiority for commercial, industrial and public installations. Olsonite Seats are made of one material all the way through—there is no applied finish to fade, crack, chip or peel—no exposed metal to rust or corrode.

For additional information, Olsonite's complete catalog is available on request. Please write on your letterhead to:

More Olsonite Seats are sold in Canada than all other makes combined.

"MADE IN CANADA"

SOLID Olsonite SEATS

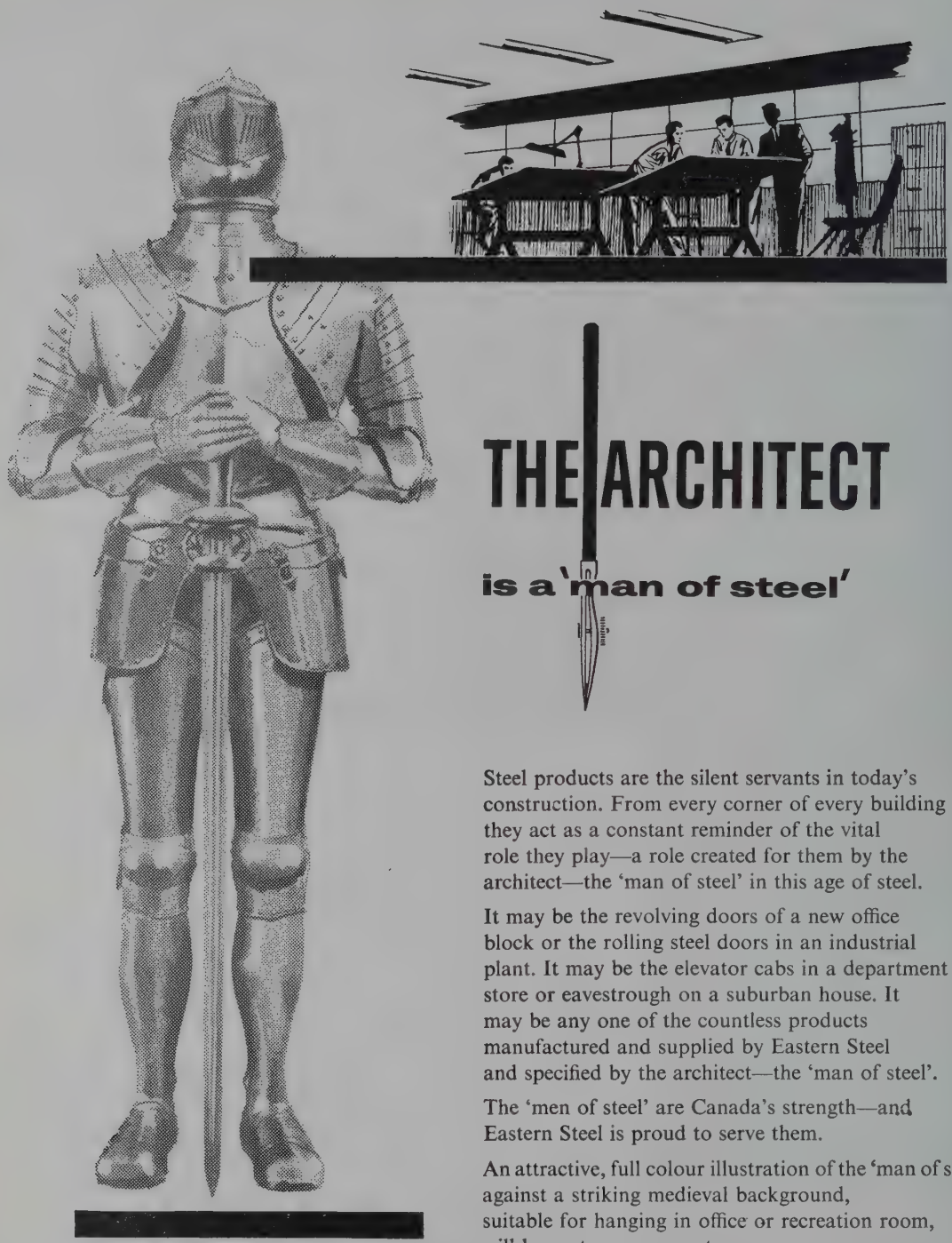
ORIGINATORS OF THE SOLID PLASTIC SEAT

Olsonite Shock-Proof Models Are Available In White or Black

AVAILABLE FROM THE MASTER PLUMBER IN YOUR NEIGHBORHOOD

CANADIAN BATTERY & BONALITE CO., LTD.

PLASTICS DIVISION • WINDSOR, ONTARIO



THE ARCHITECT

is a 'man of steel'

Steel products are the silent servants in today's construction. From every corner of every building they act as a constant reminder of the vital role they play—a role created for them by the architect—the 'man of steel' in this age of steel.

It may be the revolving doors of a new office block or the rolling steel doors in an industrial plant. It may be the elevator cabs in a department store or eavestrough on a suburban house. It may be any one of the countless products manufactured and supplied by Eastern Steel and specified by the architect—the 'man of steel'.

The 'men of steel' are Canada's strength—and Eastern Steel is proud to serve them.

An attractive, full colour illustration of the 'man of steel' against a striking medieval background, suitable for hanging in office or recreation room, will be sent upon request.

562

EASTERN STEEL

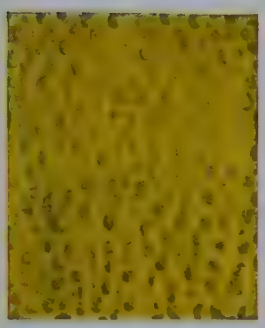
PRODUCTS LIMITED

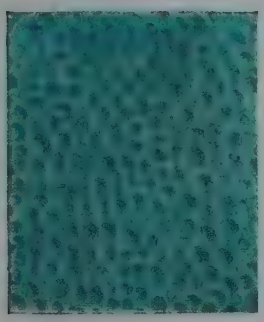
PRESTON • TORONTO • MONTREAL

FACTS ABOUT GLASS

Vol. 6 No. 5

MUROGLASS





Available in above colors and white

This new Pilkington product combines the protective qualities of glass with decorative possibilities of color. "Muroglass" has been designed to meet the demand for a cladding material for use in spandrel construction. To ensure permanency of color, the pigment is fused onto the smooth underside of a Rough Cast Glass during manufacture.

SPECIFICATIONS

Thickness: Nominal ¼ inch

Weight: 3 lbs. 6 oz. per sq. ft.

Sizes: Up to 48 x 100 inches.

MUROGLASS GLAZING NOTES

CLEARANCES

As "Muroglass" is opaque, it does not transmit solar radiant heat. Thus, due to its greater heat absorption it will expand more than ordinary glass. Adequate glazing clearances must be allowed. The following minimum clearances are intended as a basis at the design stage: Up to 30 inches major dimension — ⅛ inch all round. Over 30 inches major dimension . . . $\frac{3}{16}$ inches all round.

SETTING BLOCKS

Setting blocks under the bottom edge should always be used. This enables the glass to be positioned centrally in the frame by adjusted block thicknesses, and that balanced cover be provided on all edges.

EDGE COVER ON GLASS

The depth of the rebate and of glazing beads should be kept to a minimum consistent with the retention of the glass in the frame — ⅜ inch cover all round is suggested as a maximum, which must not be exceeded.

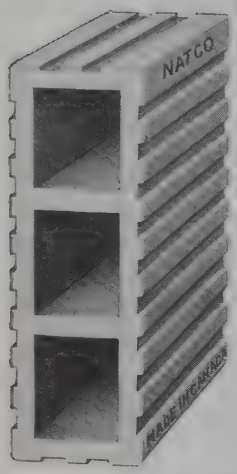
GLAZING COMPOUND

The correct type of glazing compound is most important — it must remain permanently plastic, even though not painted. A glazing compound which sets hard must not be used.

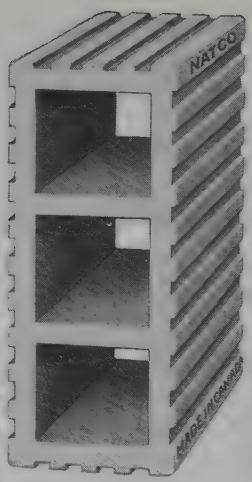
PILKINGTON GLASS LIMITED

HEAD OFFICE 165 BLOOR ST. EAST, TORONTO

BRANCHES COAST TO COAST

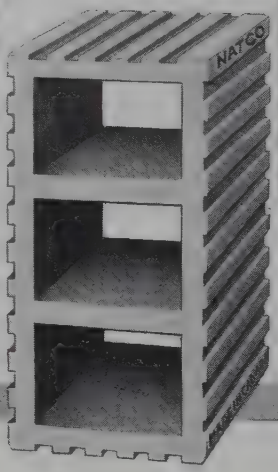


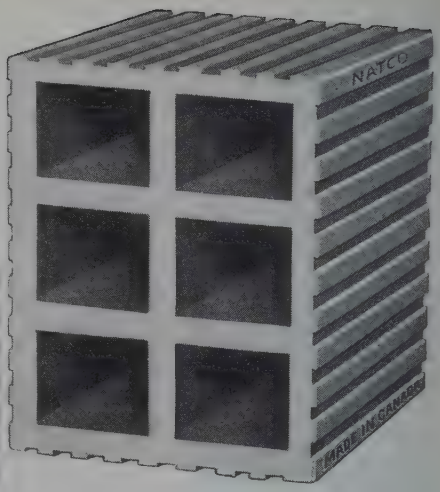
4″ x 12 ″x 12″
Partition Tile
Code No.
DD4212
WT 16#



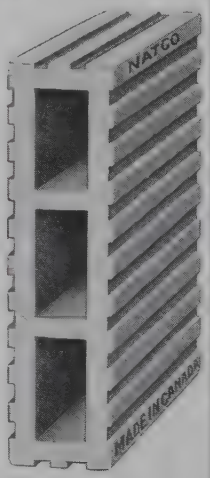
5″ x 12″ x 12″
Partition Tile
Code No. DD5212
WT 20#

6″ x 12″ x 12″
Partition Tile
Code No. 6212
WT 22#

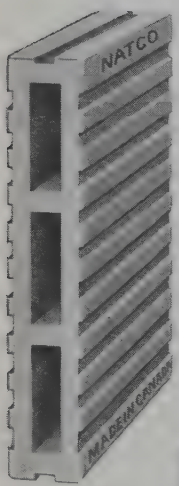




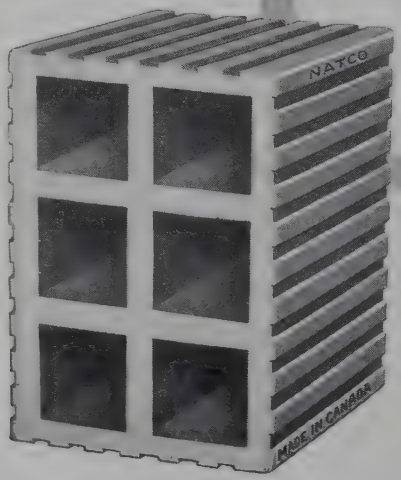
10″ x 12″ x 12″
Partition Tile
Code No. DD10212 WT 36#



3″ x 12″ x 12″
Partition Tile
Code No. DD3212
WT 14#



2″ x 12″ x 12″
Partition Tile
Code No.
DD2212
WT 14#



8″ x 12″ x 12″
Partition Tile
Code No.
DD8212 WT 30#

NATCO

STRUCTURAL SCORED PARTITION TILE

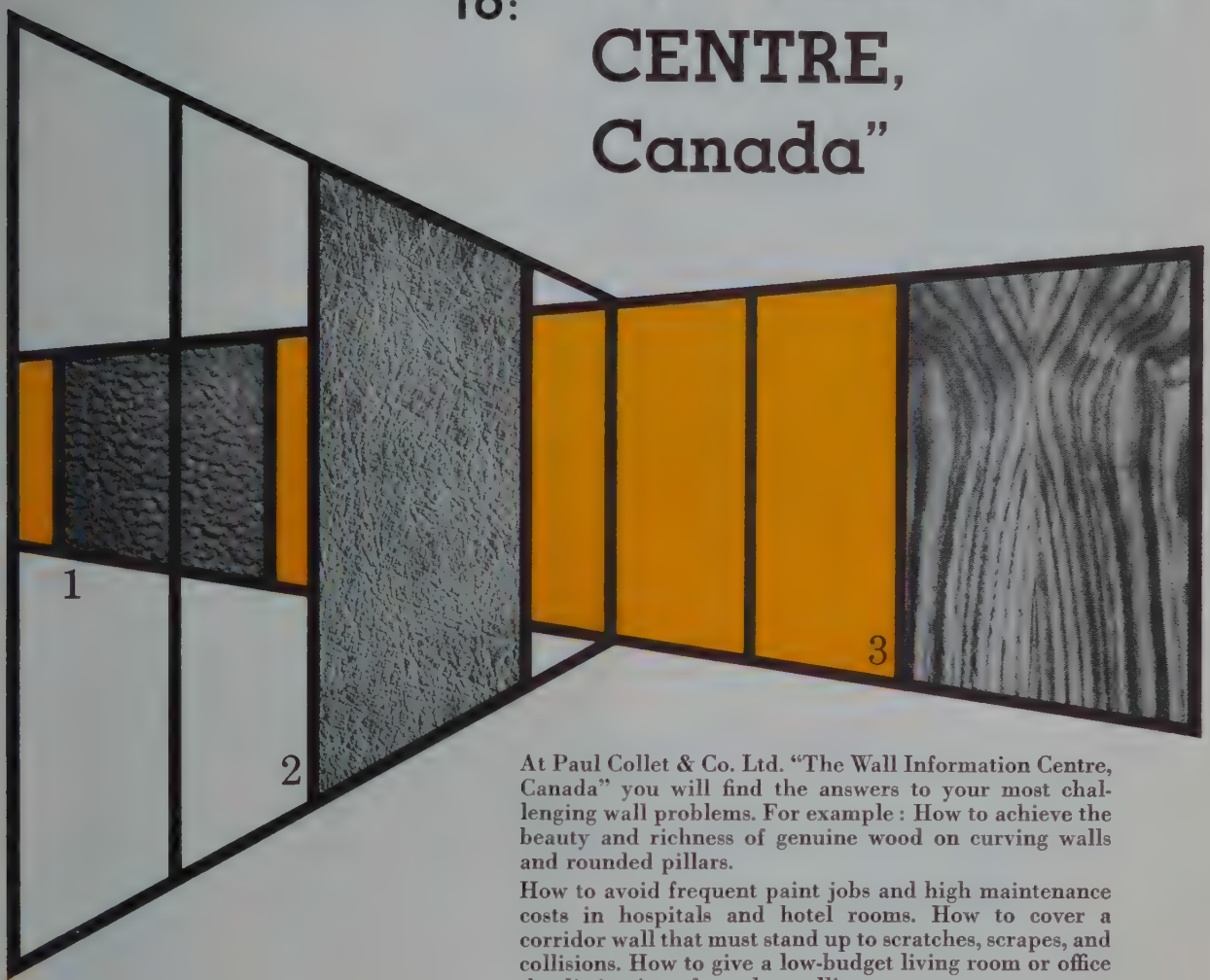
Made of shale burnt to maturity, which produces a lightweight, unshrinkable and fire proof building unit.

ADVANTAGES—Unshrinkable, Fire proof, True to size, Rodent proof—Has high Insurance rating —High resistance to passage of sound and heat.

CONSTRUCTION NOTE—When plastering, wood or steel channel bucks at door openings should be 1½″ wider than thickness of the tiles to act as grounds for plaster.

NATCO
CLAY·PRODUCTS·LIMITED
57 Bloor St. W. Toronto
THE *COMPLETE* LINE OF STRUCTURAL TILE

bring your wall problems to: "THE WALL INFORMATION CENTRE, Canada"



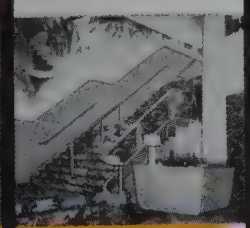
At Paul Collet & Co. Ltd. "The Wall Information Centre, Canada" you will find the answers to your most challenging wall problems. For example: How to achieve the beauty and richness of genuine wood on curving walls and rounded pillars.

How to avoid frequent paint jobs and high maintenance costs in hospitals and hotel rooms. How to cover a corridor wall that must stand up to scratches, scrapes, and collisions. How to give a low-budget living room or office the distinction of wood panelling.

The answers supplied by the products described here are yours at "The Wall Information Centre, Canada". Send the coupon below for additional information.

1. ARMOBOND —

Industrial buildings where walls receive extremely heavy treatment. A decorative material of extreme durability and toughness. Made from Fiberglass fabric and an alloy of epoxy resins.



2. KALISTRON —

A transparent vinyl "coat of armor" shields this rich wall covering — its colour is fused to the underside. Virtually impervious to scratches, scuffs, stains, rough-house. A damp cloth cleans it. Available in 33 colours.

3. FLEXWOOD —

Genuine wood panelling in flexible form. Hence, you can curve it, wrap it around posts, get wonderful matched grain effects over wide areas.

Please send information on products checked:

☐ Kalistron ☐ Flexwood ☐ Armobond

Name .....

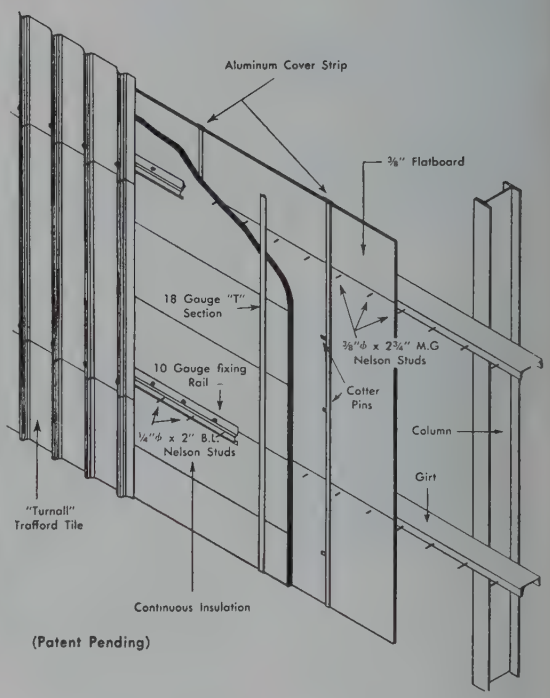
Address .....

City ..... *Province*

PAUL COLLET & CO. LTD.

Show Room: Mezzanine Floor, Laurentian Hotel, Montreal
Factory & General Offices: 2350 Florian St., Montreal
Toronto Sales Office: Wall Covering Centre of Ontario
664 Vaughan Road, Toronto
Western Canada Sales Office: Prudham Building Specialties Ltd., 7939 - 104th Street, Edmonton, Alta.

DRY WALL CONSTRUCTION
for Commercial and Industrial Buildings



(Patent Pending)

ASBESTOS-CEMENT
Turnall- (T.M. REG'D)
WALL
Industrial Insulated Siding

. . . for economy and speed in erection . . . for durability and low maintenance TURNALL-WALL is an ideal wall combination. It is a field system consisting of an outer cladding of "TURNALL" TRAFFORD TILE (or "TURNALL" asbestos-cement CORRUGATED or flat-surfaced materials) — an air space — a core of continuous rigid insulation — an inner lining of "TURNALL" asbestos-cement FLATBOARD. All are applied to steel girts from one side of the building frame.

- **FEATURES: A selection of time-proven asbestos-cement board and insulating materials. Controlled temperature conditions governed by thickness and type of insulating core selected.**

- For details and engineering data — write:
  Sales Engineering Dept.,
  Atlas Asbestos Co. Ltd., Box 878,
  Place d'Armes, Montreal, Que.,
  or your nearest Atlas Branch.

ATLAS ASBESTOS COMPANY LIMITED

Montreal Toronto Winnipeg Edmonton Vancouver

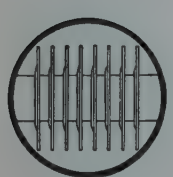
A member of the Turner & Newall Organization

OFFSET FINS

Offset feature, patented, assures complete and permanent rigidity of each fin.

FINS IMBEDDED

Fins are mechanically imbedded in copper water tube or steel pressure tube by a special "HEAL" process assuring a perfect, permanent, mechanically bonded unit that requires no maintenance or upkeep. No "ganging" or bending.



NO OBSTRUCTIONS

Fins are smooth and uniformly spaced with no obstructions between. Easy to clean and keep clean.

The original radiation designed specifically for baseboard installation

First in its field, "HEAL" TRIMLINE Radivector is lighter in weight, smaller in size and more efficient than any of its so-called counterparts. "HEAL" TRIMLINE Radivector is easier to install due to a minimum of parts. Rod hangers suspend radiation directly from metal backing resulting in easier installation, easier pitch adjustment and providing freedom for expansion. Covers are easily applied and removed for cleaning — no special tools required for installation — merely snap-on and pull off.

Peak efficiency in the heating of homes, offices, apartments, etc., is always assured with "Heal" TRIMLINE Radivector — it "Lasts a Housetime".

Study "HEAL" before you buy radiation — it will be worth your while. Catalogues and complete technical data available on request.

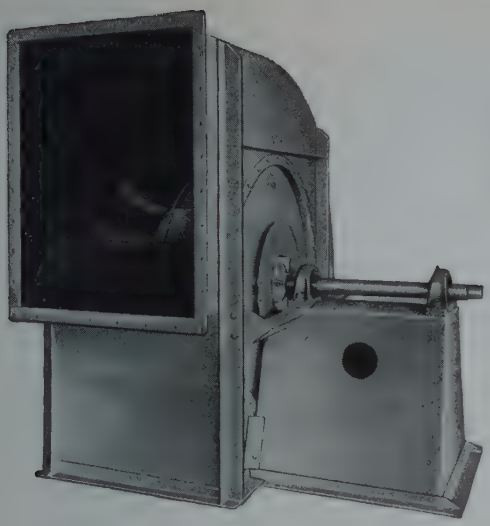
*T.M. Reg'd.

VAPOR HEATING (CANADA) LIMITED

Formerly VAPOR CAR HEATING CO. OF CANADA LIMITED

3955 Courtrai Ave., Montreal, Que.

FINNED CONVECTORS INDUSTRIAL & DOMESTIC | KLEEN-TUBE WATER HEATERS | STEAM GENERATORS | VAPOR-CALOR BLAST HEATERS | VAPOR-CLARKSON STEAM CLEANERS | AEROFIN COILS | HEALARCTIC REFRIGERATION TUBES



Sheldon FANS

specifically engineered for air moving and conditioning needs

Air and its uses in your plant can vary in application from ventilation for worker comfort to integral participation in product processing. Sheldon Engineers each day meet special and often unique problems requiring the designing and selecting of air handling equipment and systems.

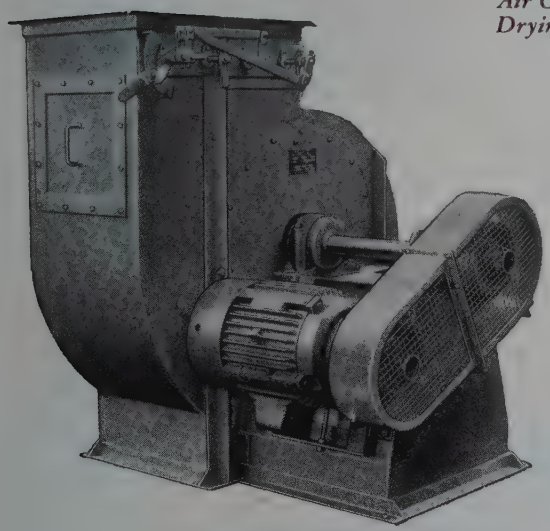
Sixty years of manufacturing and engineering experience in this field are backed by a full range of fans, blowers, heating, ventilating and air conditioning equipment.

Consult our engineers with confidence. Your particular problems involving the handling of air are worked out to the most satisfactory and economical solution.

Sheldons design, engineer and build air moving and conditioning equipment for every industrial, commercial, mining and processing need.

Mechanical Draft Fans
Ventilating Fans
Industrial Blowers and Exhausters
Dust Collection Equipment
Industrial Heaters
Air Conditioning Units
Drying Equipment

60 years air handling experience 1896-1956



Sheldons
ENGINEERING LIMITED
GALT . CANADA
MONTREAL TORONTO HAMILTON LONDON OTTAWA
Agents in Principal Cities

Canadian representatives for
Chemical Construction Corp.—P.A. Scrubber Equipment
Research Cottrell—Electrostatic Precipitators

Slip-Proof Your Stairs with built-in lifetime Protection

In constructing new buildings or renovating old ones, owners today are taking steps to guard the public's walking safety.

One sure way of eliminating the hazard of wet weather is to slip-proof your stairs with Norton Alundum Aggregate or Norton Alundum Floor and Stair Tile built right into the stairs and passageways. This Norton Alundum Abrasive is ceramically-bonded and gives you built-in lifetime protection.

Write for our informative 11-page booklet "Norton Abrasive Floors" on request.

The above photographs show the front lobby stairway and the rear stairs using Norton Alundum Aggregate and the Norton Alundum Stair Tile in the new Russell T. Kelley Building, Hamilton, Ontario.

NORTON

Making better products... to make your products better

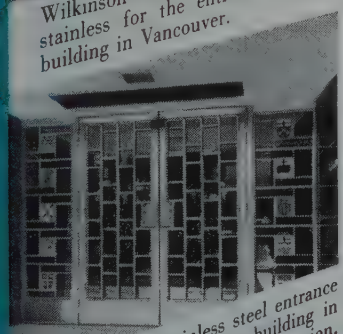
NORTON COMPANY OF CANADA LIMITED
P.O. Box 107, Station B, Hamilton, Ontario
Sales Representatives D. A. White & Company Limited
Montreal and Toronto

50-309

Entrance to the Fairbanks-Morse building in Winnipeg.

The rich, neutral luster of the metal contributes to handsome architectural effects as illustrated in the Albert G. Baker Limited building in Quebec City.

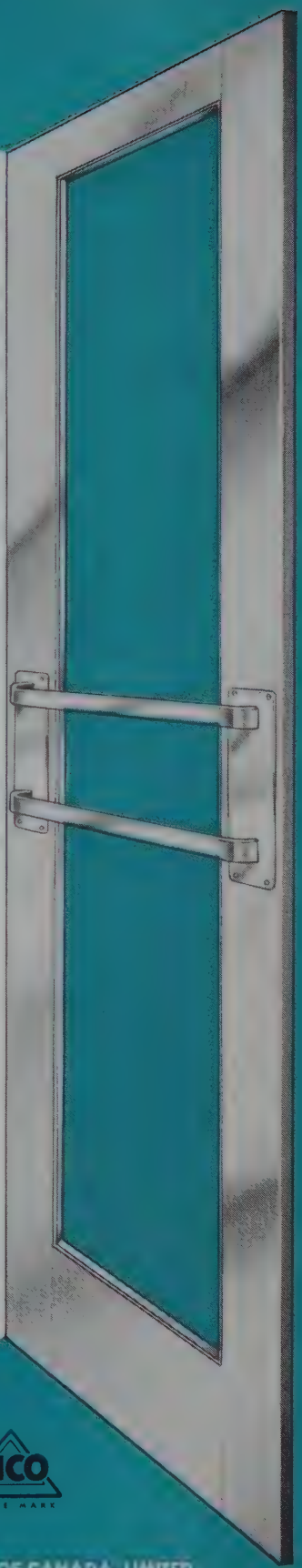
Wilkinson Company Limited chose stainless for the entrance to their building in Vancouver.



This modern stainless steel entrance to the Bank of Canada building in Winnipeg resists rust and corrosion.

From coast to coast... entrances to be proud of...

...with nickel-containing stainless steel



THE RICH, NATURAL BEAUTY OF STAINLESS IS LONG LASTING—ECONOMICAL TO MAINTAIN

Architects and designers have found that stainless steel is an enduring construction material that does not deteriorate with age and exposure. Stainless is easy to keep clean, cuts maintenance time and costs. But, above all, stainless steel is a decorative material that gives buildings grace and dignity . . . pleasing and unobtrusive beauty.

INCO
TRADE MARK

THE INTERNATIONAL NICKEL COMPANY OF CANADA, LIMITED
25 KING ST. W., TORONTO, ONT.

The SILICONE UMBRELLA

C.I.L. Paint Research Laboratory, Castlefield Ave., Toronto. Right section was treated with "AQUABAN" based on a 5% Dow Corning 129G resin. After four years, the untreated left side shows discolouration.

Moisture penetration in all types of above-ground masonry, is prevented by the water repellent Dow Corning silicone resin 129G.

This silicone resin penetrates the masonry, prevents the entrance of moisture yet leaves the pores open.

Low cost 5% solution of Dow Corning 129G does not discolour stone, brick or concrete. It is easy to apply and a single coat remains effective for many years. Dow Corning 129G allows vapour transmission but stops water absorption and minimizes efflorescence, staining and spalling.

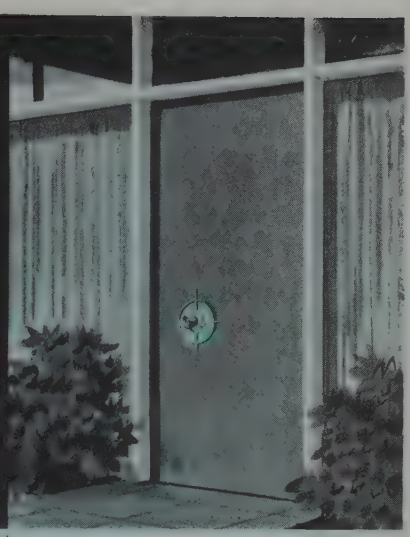
An indirect but very real advantage is that substantial fuel savings are realized through reduced heat losses with dry masonry walls.

DOW CORNING *first in* SILICONES

Tippet Rd., Downsview, Toronto **DOW CORNING SILICONES LIMITED** 5582 Decarie Blvd., Montreal

A tasteful focal point for the traditional entranceway —Continental on horizontal with 18″ backset.

Continental escutcheon (11″ x 8″) shown with Saturn design lock. Color background is paint.



The modern exterior subtly complemented by a vertical Continental with 10″ backset.

Functional harmony for an unusual doorway. Horizontal Manhattan with special backset.

Manhattan escutcheon (8″ x 4⅜″) shown with Tulip design lock. Color background is vinyl plastic.

Colorful double door motif for the dramatic entrance — twin vertical Manhattans with 7″ backsets.

"Color-Accent" LOCK STYLINGS—A NEW ENTRANCEWAY DECOR

To the architect, Schlage's open-back "Color-Accent" lock escutcheons offer opportunities for integrated doorway designs that have never existed before. Behind the open-back of the circular Continental or the rectangular Manhattan, the variety of colors and textures that can be introduced are numberless . . . the design applications which they can serve are as limitless as the architect's creative originality.

Send for New "Lock Fashions" Brochure #651R-12
For colorfully illustrated applications of the new "Color-Accent" concept and complete information on Schlage residential lock and escutcheon designs, write today for this 4-color, 12-page brochure.

SCHLAGE

TRADEMARK REGISTERED

SCHLAGE LOCK COMPANY OF CANADA, LTD. • VANCOUVER, B.C

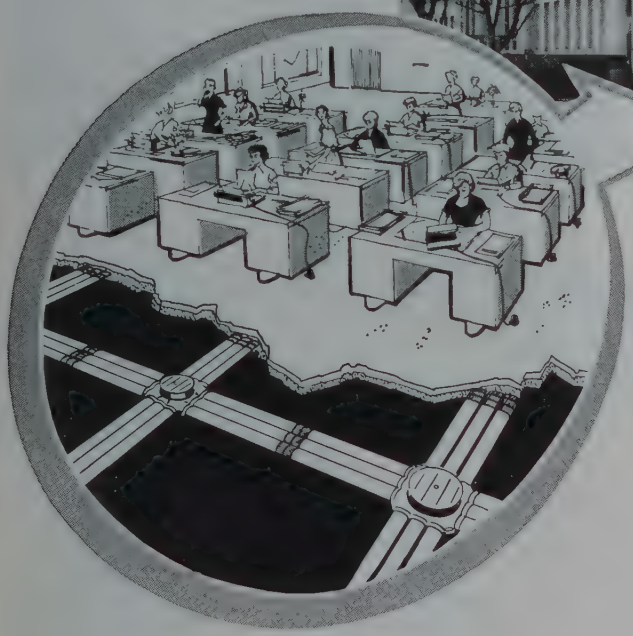
G-E FIBERDUCT . . . THE UNDERFLOOR WIRING SYSTEM . . . AS MODERN AS THE MOST MODERN BUILDINGS

fiberduct

used in the new

FEDERAL OFFICE BUILDING

EDMONTON



Owner — Government of Canada
Architect — Geo. H. MacDonald, F.R.A.I.C.
Mechanical and Electrical Consultant Engineers — Angus, Butler & Assoc.
General Contractor — Christensen & MacDonald
Electrical Contractor — Sunley Electric

Low in initial cost, light in weight, easy to handle . . . G-E Fiberduct is the modern raceway wiring system being used in more and more buildings across Canada. With Fiberduct, outlets can be installed *anywhere* along the line—during construction, or *any time* in the future when needed.

Fiberduct lasts the life of the building . . . won't rust or corrode . . . completely protects wires and cables. It can be installed in any type of concrete floor construction—because its special design allows an arch to be formed over the duct, eliminating possible cracking along the duct line. Fiberduct can be used with equal ease under linoleum, tile, terrazzo or wood floor finishes, since future outlets can be made inconspicuously.

Specify G-E Fiberduct, for long-time efficiency and economy.

G-E Fiberduct was installed for permanence, flexibility and economy!

G-E Fiberduct is manufactured in Canada and approved by the Canadian Standards Association. Call your nearest G-E office for detailed information on G-E Fiberduct . . . the underfloor wiring system . . . as modern as the most modern building.

Wholesale department

CANADIAN GENERAL ELECTRIC COMPANY

LIMITED

Please send me free catalogue on the G-E Fiberduct underfloor wiring system.

Canadian General Electric Co. Ltd.,
Wholesale Department, A & S M'k'tg.
212 King Street West,
TORONTO, Ontario.

NAME.....

NAME OF COMPANY.....

ADDRESS.....

CITY.....PROV.....

specialty patterns

in genuine cork

dodge

cork tile flooring offers more features for greater customer satisfaction

DODGE floors in specialty patterns are luxurious in appearance, resilient as only genuine cork can be, and have exceptional wearing properties. Additional features are offered in three different surface finishes to meet individual preferences.

Dodge Vinyl-cork tile has a tough surface that requires no scrubbing or waxing. It is impervious to spots, stains and scratches. Dodge Standard cork tile is mellow in appearance and gives life-time service. And Dodge Standard cork tile with the new SG finish surpasses anything in its field. It is spot- and stain-resistant, water-repellent, and holds its luster with a minimum of care.

Narrowstripe Parquetry, one of Dodge's four exclusive specialty patterns, available in Vinyl-Cork* or Standard Cork Tile.

Write today for Catalog No. 56, and ask for a sample of the new SG finish. See also Sweet's Architectural File $\frac{13i}{Do.}$

DODGE CORK COMPANY, INC.
LANCASTER, PA.

*Firestone Velon surface

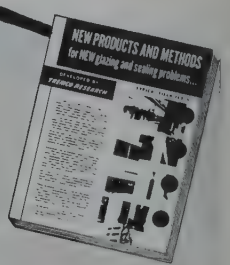
Write for names of Canadian distributors.

Prevent Leaks ...in curtain walls

Tremco research, aided by representatives of leading glass manufacturers, has developed new glazing and sealing techniques for curtain wall construction.

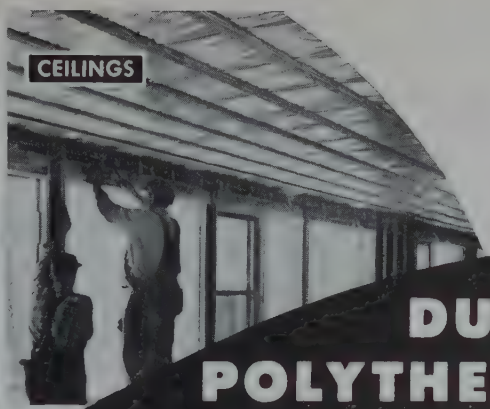
You'll find these new specifications important to insure leak-free installations. Ask your Tremco Man for a copy of "NEW PRODUCTS AND METHODS FOR NEW GLAZING AND SEALING PROBLEMS," or write: The Tremco Manufacturing Company (Canada) Limited, Leaside, Toronto, Ontario.

"When you specify a Tremco product—you specify a Tremco service!"



TREMCO

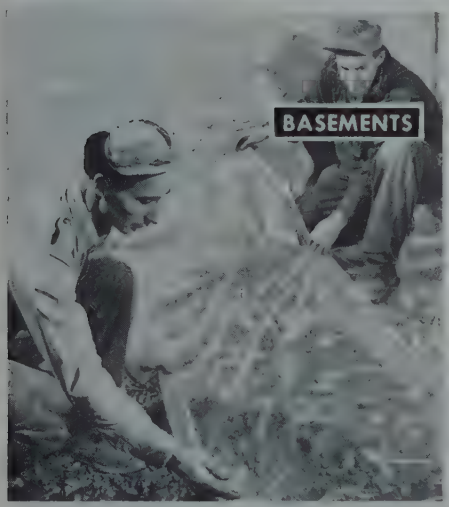
PRODUCTS AND METHODS FOR BUILDING MAINTENANCE & CONSTRUCTION



DU PONT POLYTHENE FILM

The Low Cost, Permanent

MOISTURE-VAPOUR BARRIER



Now Specified by Architects and Builders to Protect New Homes and Large Buildings!

Sales figures prove it! Throughout the construction industry, Du Pont Polythene is known to be an effective, economical moisture-vapour barrier.

LOWERS CONSTRUCTION COSTS! SAVES ON REPAIR BILLS!

- ***Polythene*** **assures permanent protection from costly moisture-vapour damage! It is completely waterproof.**
- ***Polythene*** **is tough—will not shatter, split or run if punctured. Resists cuts and nicks.**
- ***Polythene*** **is lightweight, easy to handle.**
- ***Polythene*** **is durable—acids, alkalis do not affect it.**
- ***Polythene*** **is flexible—remains workable down to 70°F. below zero.**
- ***Polythene lasts the entire life of the building!***

DU PONT CANADA

DU PONT COMPANY OF CANADA LIMITED

Films Division—Sales Offices: **St. John's, Halifax, Montreal, Toronto, London, Winnipeg, Edmonton, Vancouver**

As important to you as bricks and mortar: *permanent* moisture-vapour protection in *your* buildings! Du Pont Polythene is available from your dealer in convenient rolls of 500 and 1500 sq. ft. in various widths and gauges.

Clip coupon for more information about Du Pont Polythene Film. C.M.H.C. Accepted!

Please send me an illustrated folder telling all about Polythene in construction.

Du Pont Company of Canada Limited,
Room A-2, Box 660, Montreal.

Name .....

Company .....

Address .....

City and Province .....

SOUND plans specify...

ACOUSTI-CELOTEX

TRADE MARK REGISTERED U.S. PAT. OFF.

Many sound conditioning materials look alike but differ greatly in effectiveness. A successful product is often imitated but seldom equalled.

Acousti-Celotex is the registered name of the original perforated sound conditioning tile. It is readily accepted for its efficient sound absorption qualities which have been proven by actual tests. Acousti-Celotex is today the most widely used product for the efficient reduction of noise level in all types of buildings. You have a choice of several designs to attractively meet architectural requirements. Repeated paintings will not affect its efficiency.

DOMINION SOUND Equipments Limited

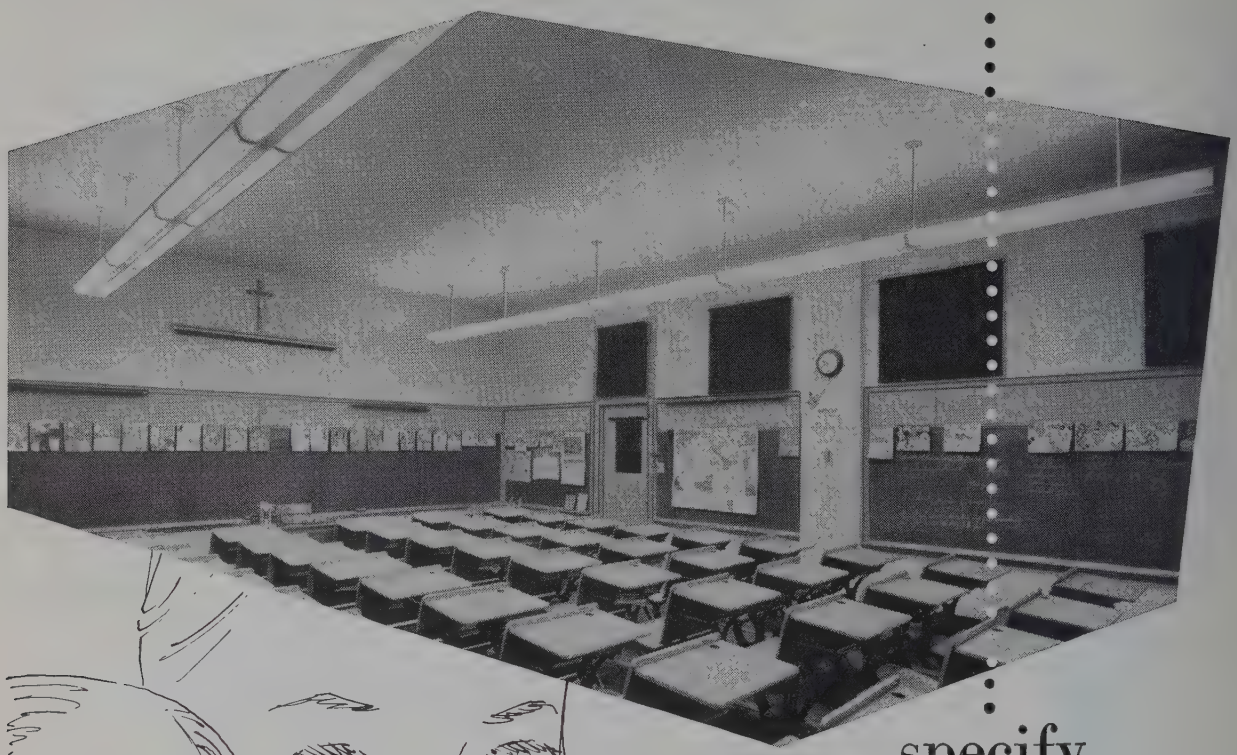
HEAD OFFICE: 4040 St. Catherine Street West, Montreal
BRANCHES AT: Halifax, Saint John, Quebec, Montreal, Ottawa, Toronto, Hamilton, London, North Bay, Winnipeg, Regina, Calgary, Edmonton, Vancouver.

Please forward data

Advertising Department
Dominion Sound Equipments Limited
4040 St. Catherine St. West, Montreal, Que. DS-55-17

NAME .....
COMPANY .....
ADDRESS .....
CITY .....

For The *Unchanging* North Light .....



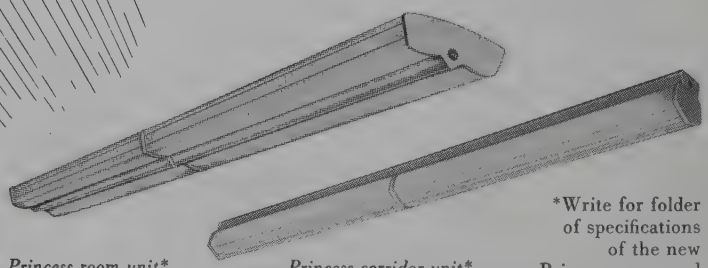
specify

Princess *Luminaires*

for the classroom.....

For lighting that illuminates every corner — rests the eyes — never glares — casts no shadows — more and more architects specify Curtis Princess units for use in schools.

Co-ordinate your Princess room units with Princess corridor units — both may be used individually or in continuous rows.



*Princess room unit**

*Princess corridor unit**

*Write for folder of specifications of the new Princess room and corridor units.

CURTIS

CURTIS LIGHTING OF CANADA LIMITED

195 Wicksteed Avenue, Leaside, Toronto 17, Ont.

From delivery to first peek at dad . . .

life at Montreal General begins in conditioned air

New Montreal General Hospital. Architects: McDougall, Smith & Fleming; Consulting Engineers: McDougall & Friedman; General Contractor: Anglin-Norcross, Limited; Air-Conditioning Contractor: Ventilating & Blowpipe Company.

Four times an hour, 15 Canadian Sirocco Supply Fans and 28 Exhaust Fans provide a complete change of air throughout Montreal General.

An example of how Canadian Sirocco meets air-conditioning needs

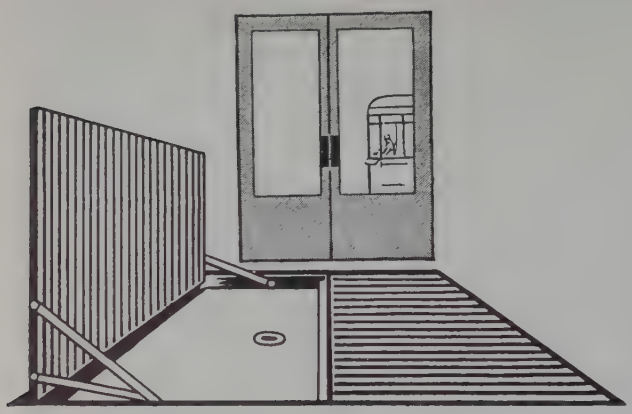
Before their introduction to this world's smoke, dust, changing temperatures and humidity — newborn babes at the new Montreal General Hospital begin life in clean, controlled atmosphere supplied by Canadian Sirocco equipment. Summer and winter, temperature in the delivery rooms and nursery is precisely controlled . . . to insure comfort for mothers-to-be, and to keep babies free of prickly heat rash.

Air conditioning also helps minimize shock in the 14 operating rooms, and assures ideal temperature and pollen control in the 20 allergy rooms. Fact is, throughout this modern hospital's 12,000,000 cu.-ft. space, Canadian Sirocco equipment contributes year-round to the comfort and cure of *every* patient . . . provides ventilation, heating, cooling, filtering and dehumidifying according to the varied air requirements of the many sections.

If air conditioning or ventilation is included in *your* plans, why not discuss your equipment needs with one of our representatives, or write direct to P.O. Box 360, Windsor, Ont.

AMERICAN-STANDARD PRODUCTS
(CANADA) LIMITED

CANADIAN SIROCCO PRODUCTS



"Bolar Grating" patented under No. 436-170 made in Iron, Steel or Bronze — same as Aluminum — is a device of great usefulness designed to absorb Mud, Snow, Sand and other types of Dirt in the interior entrances of Public Buildings, Stores, Homes, etc.

- IT CLEANS EASILY AND QUICKLY
- IT CAN BE INSTALLED EVERYWHERE

For further details, write or telephone to

BOLAR FOOT GRILL CO. LTD.

GEORGES BEAUREGARD, PRÉS.

4362 FOREST STREET, MONTREAL NORTH, P.Q.

Tel. Vendome 6347

DUR-O-WAL®

wishes all a

Merry Christmas

and a

Happy New Year

Ramset

FASTENING SYSTEM

Specify Light Weight Self Powered Ramset Tool for Installation of Asbestos Sheets

The average operator can easily drive up to 5 threaded studs into steel or concrete per minute.

Phone or write us for information on any fastening job into steel or concrete.

Ramset fasteners $8.00 up per 100.

Dealers are located in all Industrial Centres.

Ramset Fasteners Ltd.

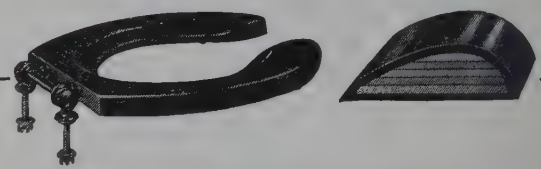
11-15 LAPLANTE AVE., TORONTO, ONT.

Ramset Fasteners produced in Canada since 1949

THE *ONLY* TOILET SEAT *GUARANTEED* AND PROVEN FOR 25 YEARS!

VICEROY RUBWOOD

Hard-rubber-covered, 5-Ply-core Toilet Seats



Preferred by Architects, Building Contractors and Plant Engineers for their trouble-free service throughout the world. Costs for repairs or replacements are eliminated. These seats are easy to keep clean, impervious to acids, disinfectants and abrasion of scrubbing. Will retain their high gloss indefinitely.

VICEROY

VICEROY MANUFACTURING COMPANY LIMITED

TORONTO · MONTREAL · WINNIPEG · VANCOUVER

Canada Creosoting Company *for the best in treated timber*

Pressure Treated Timber Foundations

designed

for permanence and economy

Pressure Treated foundations supplied by Canada Creosoting Company Limited, being driven for new Court House at Kelowna, B.C.

Pressure Treated timber was specified because it is "economically permanent"... combines permanence with low first cost and low maintenance.

Pressure Treated timber is a highly adaptable structural material which can be designed to meet exacting requirements for strength and durability. For complete information on pressure treated timber and its design applications call any of the sales offices below.

Sales Offices:

Truro Montreal
Toronto Winnipeg
Calgary North Vancouver

CANADA CREOSOTING COMPANY
LIMITED

Suppliers of Pressure Treated timber for Bridges and Culverts, Wharves, Poles and Cross Arms, Foundation Timber and Piling, Farm Structures, Track Ties, Wood Block Floors, Roof Planking, Fence Posts, Guard Rails, Mine Timbers.

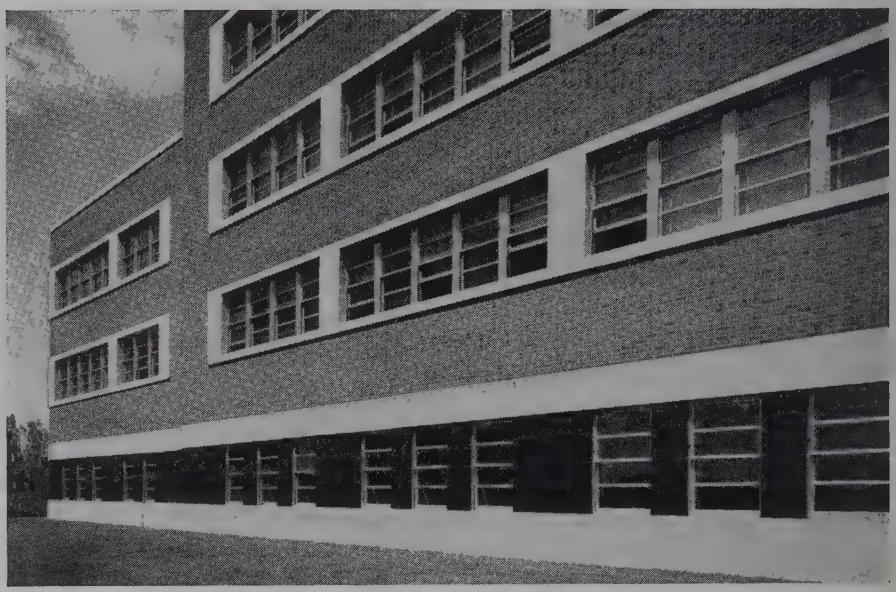
New office building of Rinshed Mason Company of Canada Ltd., Windsor, Ont., is equipped with Truscon Steel Architectural Projected Windows

LONG LIFE ✓
HIGH EFFICIENCY ✓

Truscon steel or aluminum Windows

No matter what your window requirements are, Truscon has the answer. In fact, all the answers, for Truscon has been designing them for the Canadian construction trade for a long time—keeping right in step with every new building trend—introducing new ideas aimed at easier installation and better service—in short giving every builder exactly what he wants in better window value.

Truscon Steel or Aluminum Windows allow the maximum of sun and light — and in all respects provide the modern long-life type of construction that always proves cheaper in the end.



Page & Steele
Thomas R. Wylie
Associated Architects

Workmen's Compensation Board building in Toronto has Truscon Aluminum Double Hung Windows as part of its ultra-modern construction.

Other Dependable Truscon Products:

STEEL ROOFDECK — ALUMINUM ROOFDECK — STEEL JOISTS
INDUSTRIAL STEEL DOORS — PRESSED STEEL DOOR FRAMES
AIRPLANE HANGAR DOORS — REINFORCING STEEL — STEEL FLORETYLE
WELDED WIRE MESH — METAL LATH — CORNER BEAD — CONCRETE INSERTS

TRUSCON STEEL COMPANY of CANADA LIMITED
WALKERVILLE ONTARIO
TORONTO MONTREAL HALIFAX ST. JOHN'S, NFLD. SAINT JOHN, N.B. QUEBEC CITY
SHERBROOKE OTTAWA WINNIPEG REGINA CALGARY EDMONTON VANCOUVER

STRONG, SMOOTH, SEAMLESS WALLS AT LOW COST

Here's the easy, economical way to build walls and ceilings: Just nail Fire-Protective GYPROC WALLBOARD in place . . . fill the joints with GYPROC JOINT FILLER AND TAPE . . . and the wall is ready to decorate. Seams are invisible.

Only GYPROC offers such a perfect combination of Fire-Safety, beauty and utility. It's worth specifying.

Sold by Builders' Supply and Lumber Dealers across Canada.

Gypsum, Lime *and* Alabastine, Canada, Limited

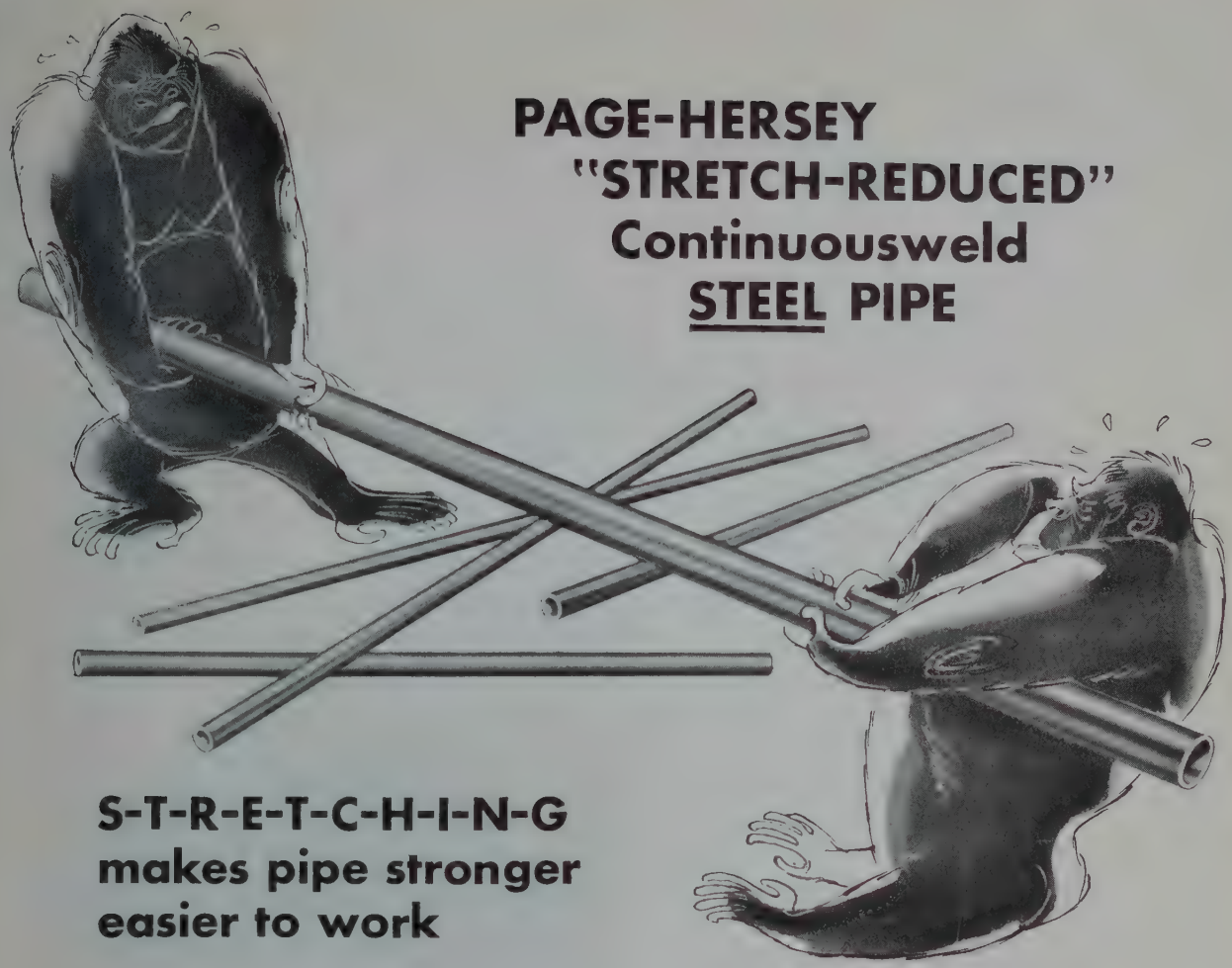
VANCOUVER CALGARY WINNIPEG
TORONTO MONTREAL WINDSOR, N.S.

Fire-Protective

3G6

GYPROC

WALLBOARD ··· LATH AND PLASTER ··· SHEATHING ··· INSULATION



PAGE-HERSEY "STRETCH-REDUCED" Continuousweld STEEL PIPE

S-T-R-E-T-C-H-I-N-G makes pipe stronger easier to work

Page-Hersey's Modern "Stretch-Reduced" process is the greatest improvement in pipe-making in a decade. It forges and refines the grain of the steel, increases pipe strength and ensures the utmost uniformity in ductility, diameter and wall thickness.

Particularly suited to all domestic and industrial installations. It bends without distortion and is exceptionally clean inside and out. Manufactured to highest standards in all sizes up to 4″ inclusive.

Page-Hersey employs the most modern methods known in the industry, manufacturing the following products:

Cold-Expanded Electric-Resistance Weld Steel Pipe • Stretch-Reduced Continuousweld Steel Pipe • Seamless Steel Pipe and Tubing • Electric Weld Steel Tubing • Tubular Steel Poles • Hot dipped galvanizing and other special Coatings • Nipples and Couplings • Flexible Polyethylene pipe • Rigid unplasticized polyvinyl chloride (P.V.C.) pipe.

SEND FOR THESE FREE PAGE-HERSEY BOOKLETS

They explain the various advantages of pipe made by these special processes, and contain invaluable technical data. For free copies write to Page-Hersey Tubes, Limited, 100 Church St., Toronto, Ont.

PAGE-HERSEY TUBES, LIMITED

GENERAL OFFICES: TORONTO

HALIFAX MONTREAL WINNIPEG CALGARY EDMONTON VANCOUVER

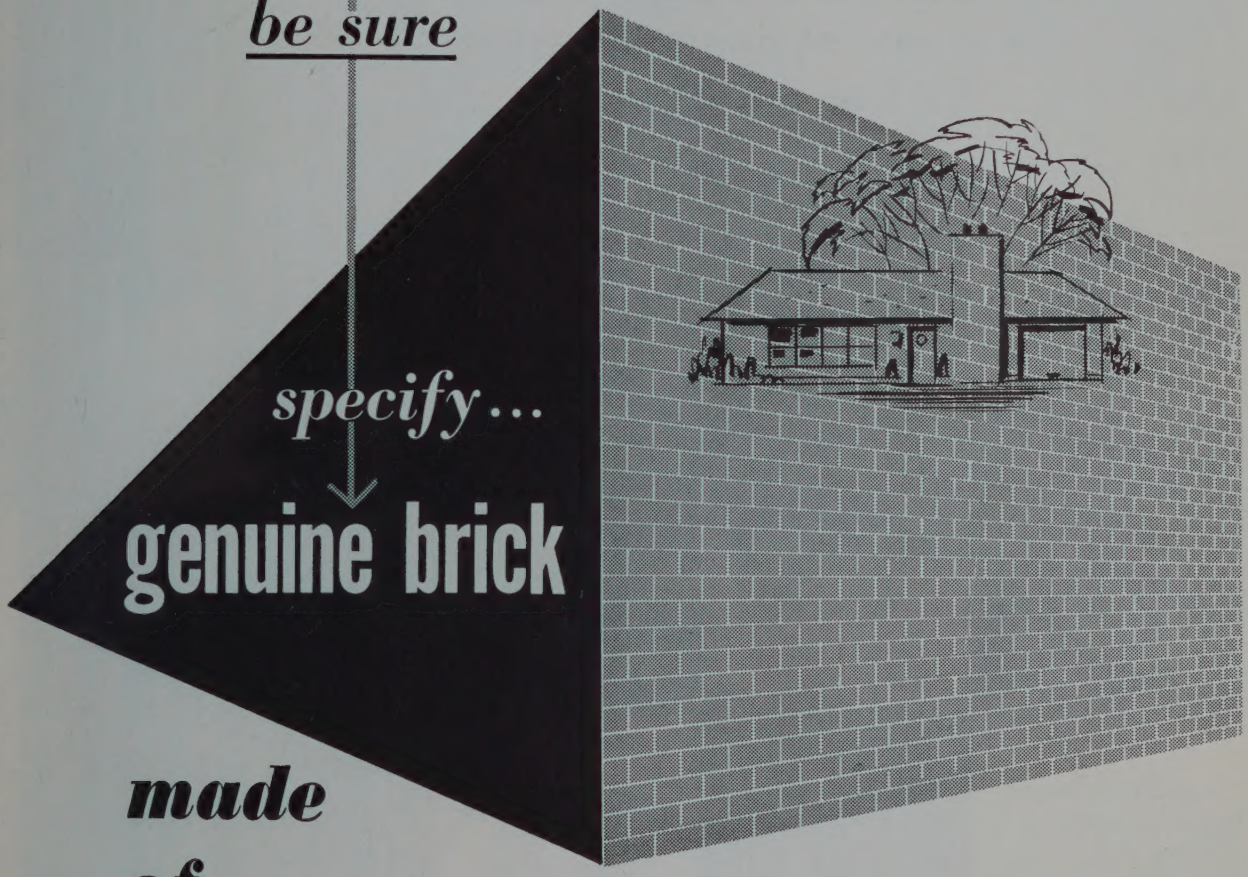
INDEX OF JOURNAL ADVERTISERS

don't just specify "brick"

be sure

specify...

genuine brick



made of burned clay or shale

In strength, dimensional stability, durability, bonding properties, **genuine brick** has no equal and it has a high fire resistance rating. It offers a wide variety of natural colour and texture for every type of construction and gives flexibility of proportion and design. A brick structure offers greater comfort, too, because the heat storage capacity of **genuine brick** averages out the heat gain peaks.

Specify what you can trust—GENUINE BRICK.

Booth Brick Ltd.
Brampton Brick Ltd.
Canadian Pressed Brick Co. Ltd.
Cooksville Co. Ltd.
F. B. McFarren Ltd.
Milton Brick Co., Ltd.
St. Catharines Brick & Tile Co. Ltd.
Toronto Brick Co., Ltd.

Interprovincial Brick Co. Ltd.

Schlitz Brewing Company, Van Nuys, California
Archts.—Harley, Ellington & Day, Detroit, Michigan
Consltg. Struct. Engrs.—Brandow & Johnston, Los Angeles
Gen. Contr.—P. J. Walker Co., Los Angeles, California
Pozzolith Ready-Mixed Concrete supplied by Arrow Rock Co., Sun Valley, California

Architect Employs POZZOLITH...
To Improve Control of Concrete Quality...

POZZOLITH... *the key to-*

- lowest possible unit water content*
- close control of entrained air... placing consistency... rate of hardening
- reduced costs

* For a given set of materials and water-cement ratio, unit water content (water required per cubic yard of concrete) is the most important basic factor affecting the quality of concrete. A.C.I., Committee 613, 1944 Report, Page 655. Bureau of Reclamation Concrete Manual, 5th edition, Page 130.

Pozzolith has been employed, since 1932, in the construction of many architectural concrete buildings to help avoid honeycombing and other segregation defects. A better surface is obtained because of improved cohesiveness and plasticity...even when water is substantially reduced.

Architects and engineers employ Pozzolith with confidence because:

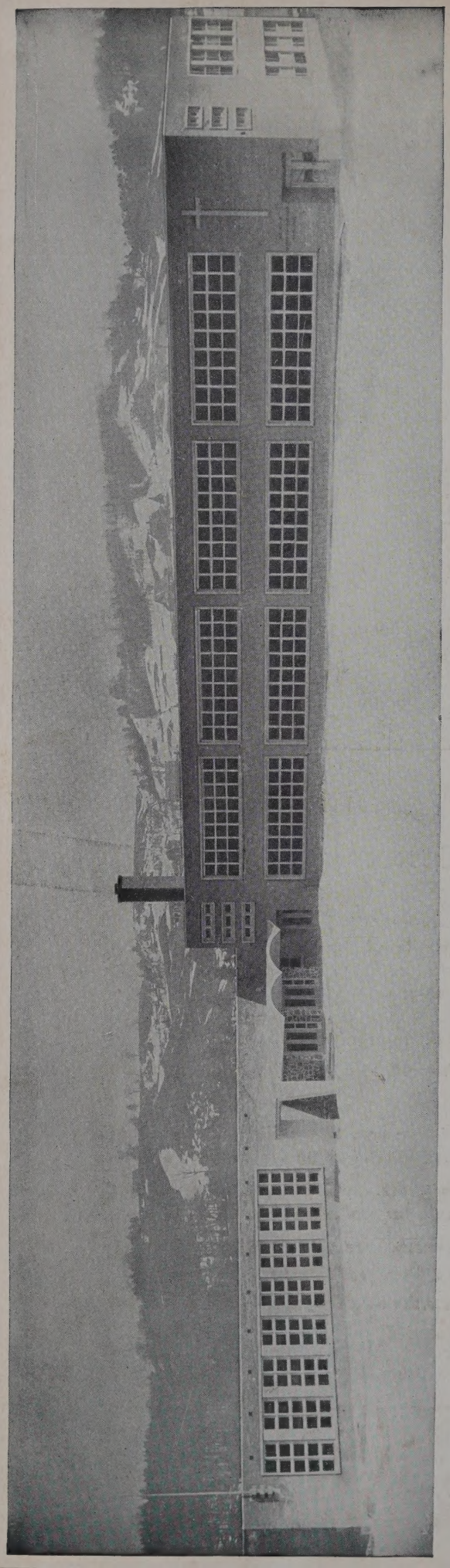
1. ***proved performance***...100 million cubic yards of concrete produced with Pozzolith for all types of jobs.
2. ***applied know-how***...over 70 skilled Master Builders' field technical men for product-use consultation.
3. ***available everywhere***...1000 ready-mix and job-site plants now producing concrete with Pozzolith.

Ask us to demonstrate the advantages of Pozzolith for your project.

THE MASTER BUILDERS CO. LTD.

Subsidiary of American-Marietta Company

95 INGRAM DRIVE — Products sold in Canada are manufactured in Canada — TORONTO 9, ONTARIO



Monseigneur Durand School, Coaticook, Quebec. Builder: J. E. Verrett Ltd., Sherbrooke; Architect, Rodolphe Lajoie, Montreal.

Engineered to help you plan better buildings

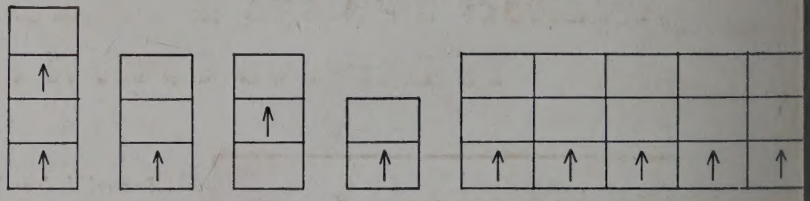
Rusco Prime Windows—an entirely new concept in window engineering—we developed to make it practical for Architects and Builders to plan and construct bett buildings while working with complete, finish-painted, ready-to-install window units.

Rusco hot-dipped galvanized tubular steel Prime Windows are made in Horizont Slide, Vertical Slide and Fulvue Vertical Slide models in all standard sizes and shape When you specify Rusco—you eliminate costly, time-consuming on-the-job painting, glazin refitting and adjusting! And there are no sash cords, weights or balances to get out of orde They are complete the minute they go into the window opening!

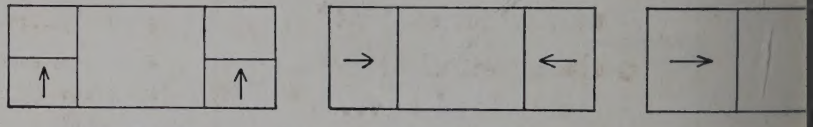
Check these RUSCO advantages! Made of hot-dipped galvanized tubular ste for strength, long life and minimum maintenance. Zinc-treated, Bonderized and finished wi baked outdoor-type enamel for protection against weathering.

- Available with insulating sash and Fiberglas screen, as an integral part of the unit. Insulating sash gives Rusco's exclusive Magic-Panel Ⓣ year 'round, rainproof, draft-free, ventilation.
- Built-in waterproofed felt weather stripping . . . Makes Rusco Windows completely weathertight, eliminates metal-to-metal contact, noise and rattling.
- Positive automatic locking of vertical sli units in all open and closed positions. Sprin bolt action.
- Smooth, effortless operation Rusco sash se tions slide in a felt cushion—easily, quiet without effort.
- Sliding glass panels removable from insi for easy cleaning. Sliding glass inserts s out in an instant for safe, convenient, insi cleaning.

Design Flexibility. Rusco offers a variety of sizes and styles in the Fulvue window. Th fact, coupled with the simplified mullion feature for joining units in series, permits wi flexibility in fenestration design.



Rusco Prime Windows are made in a wide variety of types and sizes. They may be joined in multiples w Rusco's Amplified non-load bearing mullions.



Picture with flankers | Horizontal Composite | Horizontal slide

Compare the end cost of Rusco Prime with that of any other window

RUSCO PRIME WINDOWS

(TUBULAR STEEL) **(HORIZONTAL OR VERTICAL SLIDE**

THE F. C. RUSSELL COMPANY OF CANADA LIMITED

DEPT. AJ-46, STATION "H", TORONTO 13, ONTARIO

DISTRIBUTORS

A PRODUCT OF CANADA

CROFT METAL PRODUCTS LTD.
P.O. BOX 1445 NORTH
HALIFAX

DAIGLE & PAUL LTD.
1962 GALT AVE.
MONTREAL

MACOTTA CO. OF CANADA LTD.
85 MAIN ST. SOUTH
WESTON, ONTARIO

DALE EQUIPMENT LTD.
1524 ERIN ST.
WINNIPEG

WASCANA DISTRIBUTORS LTD.
1810 BROAD STREET
REGINA

CAPITOL BUILDING SUPPLIES LTD.
9120-125th AVENUE, EDMONTON
also: 1228 KENSINGTON RD., CALGARY